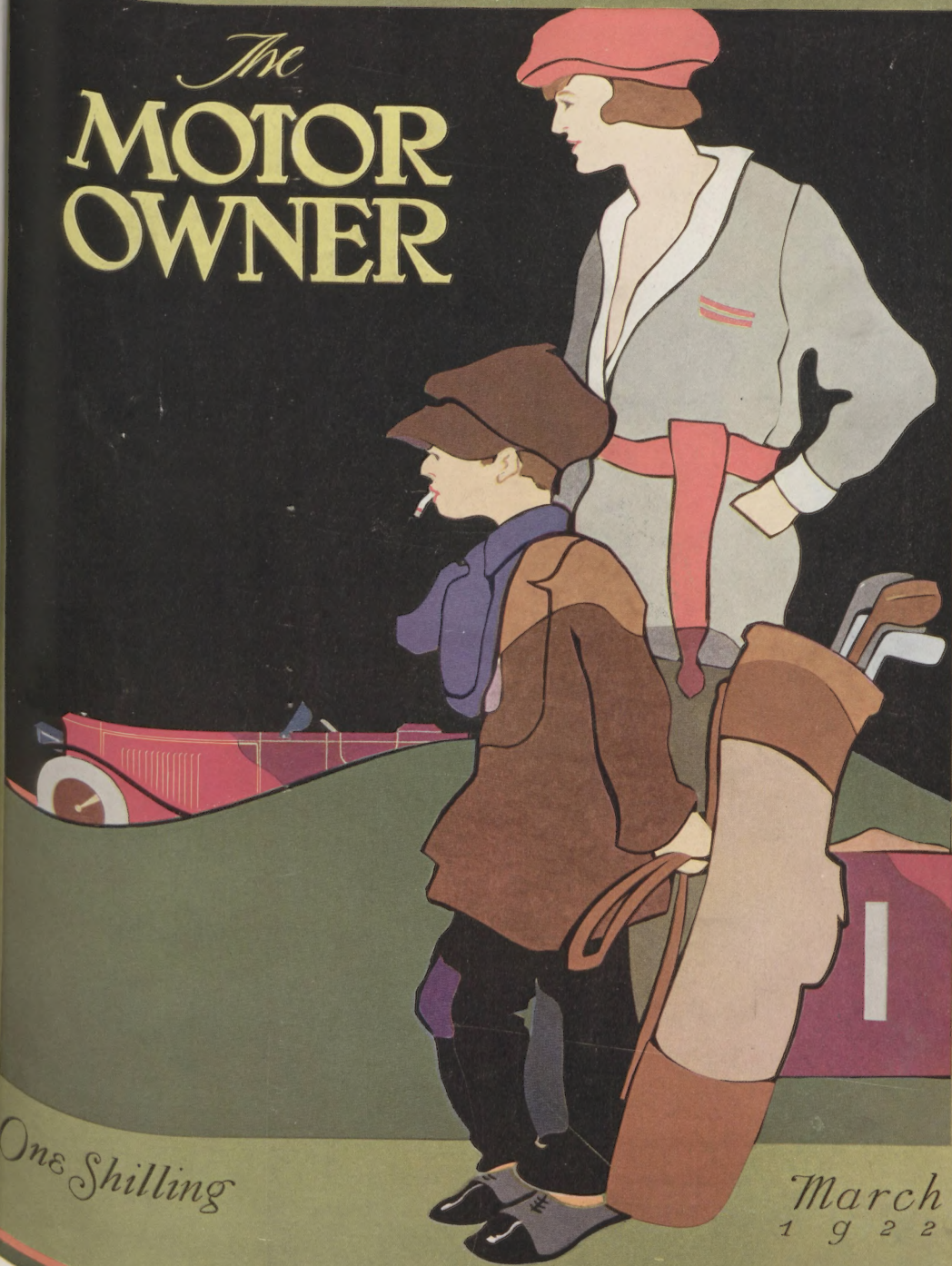


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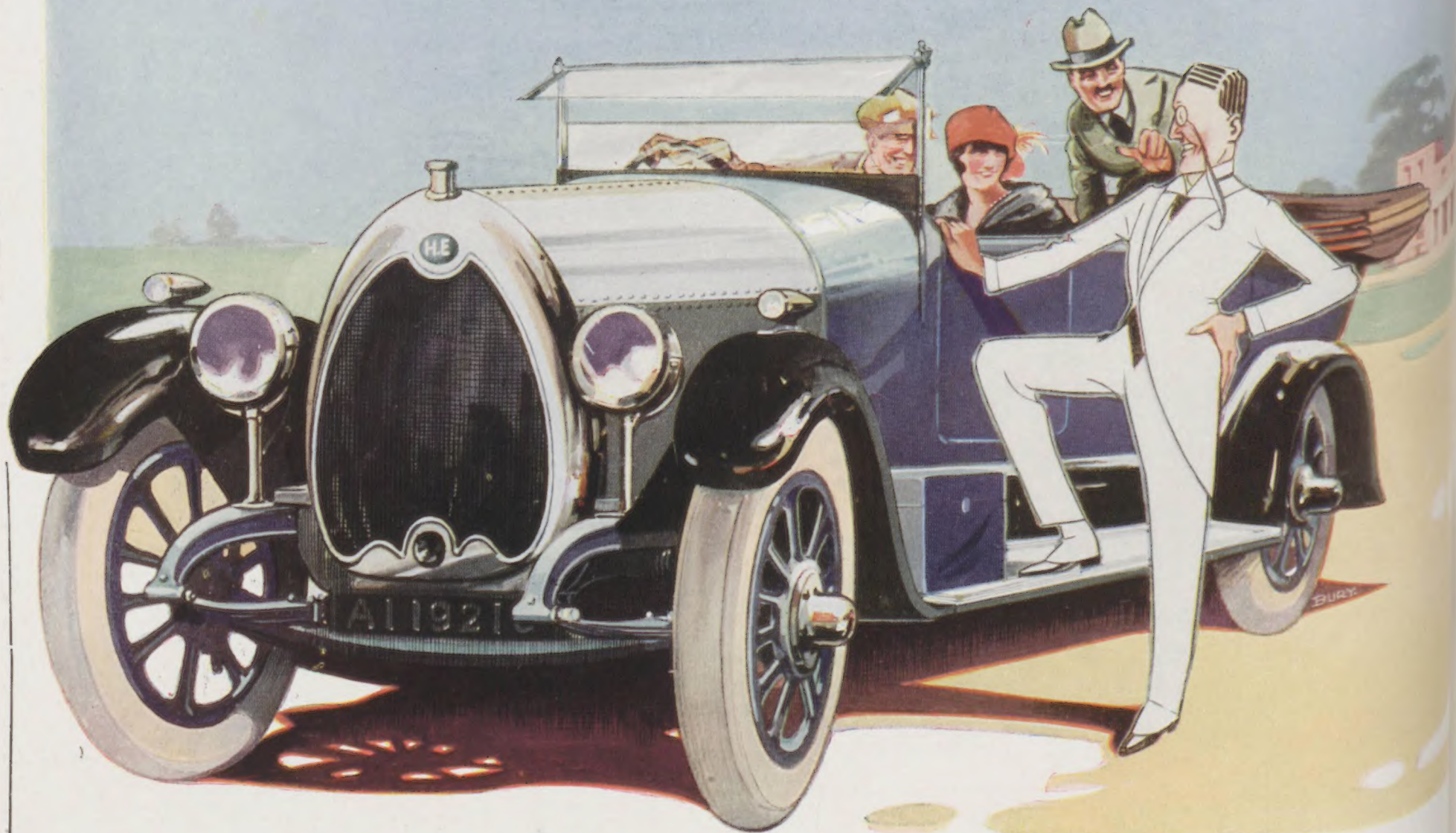
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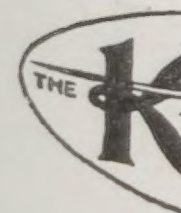
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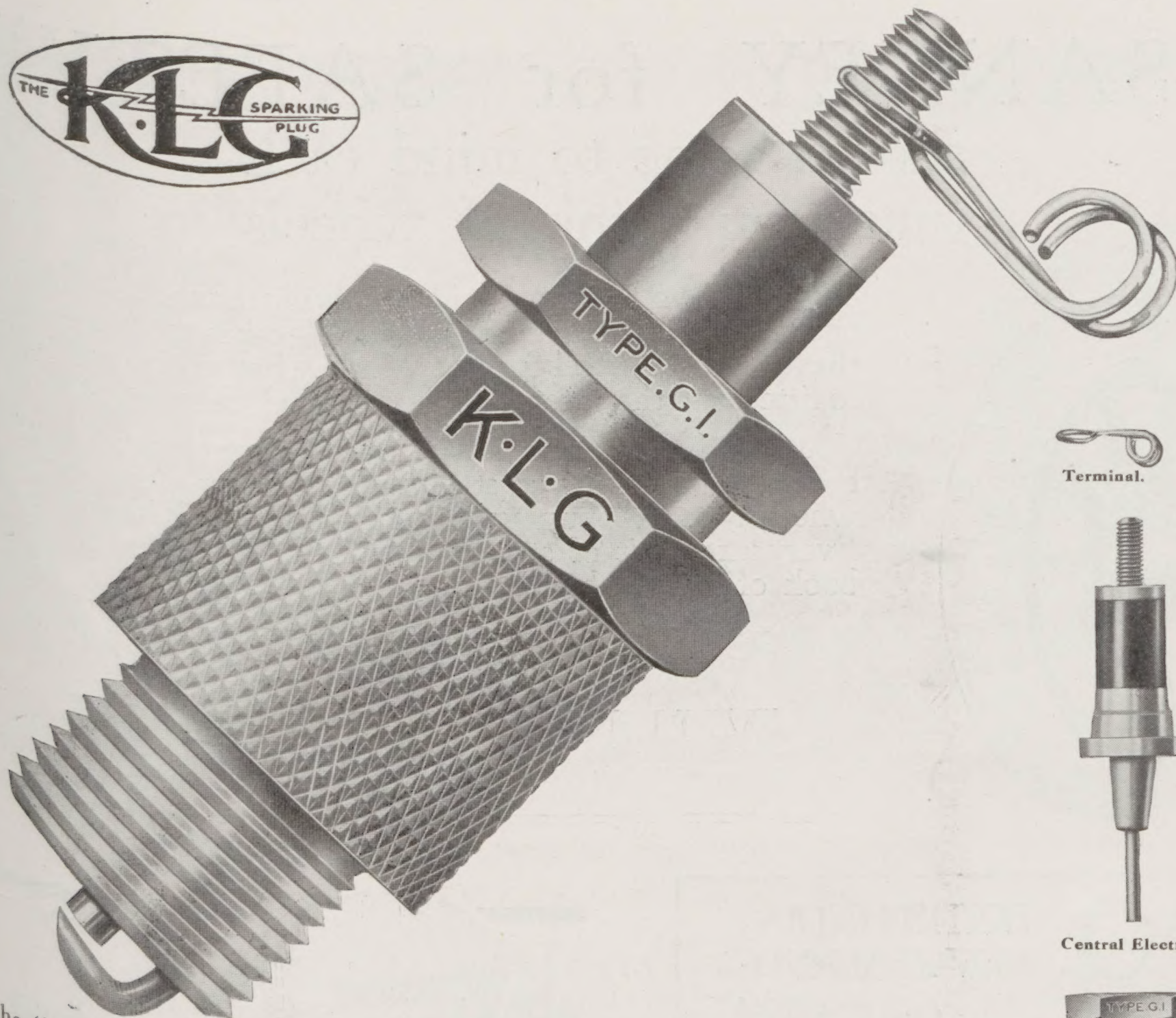
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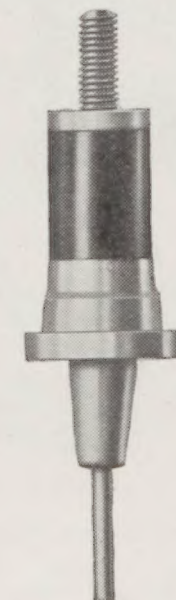


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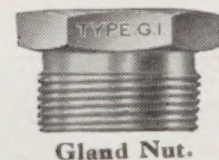
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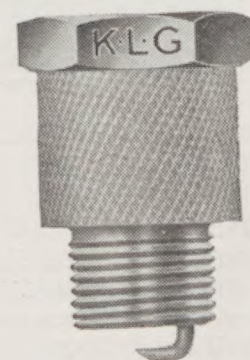
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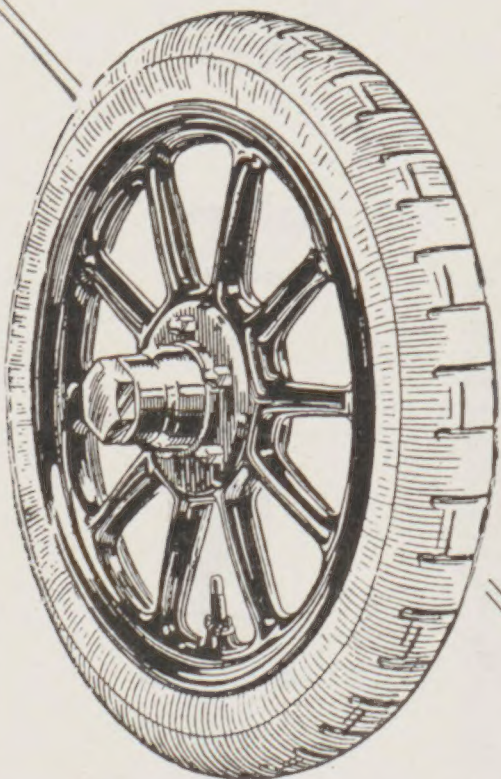
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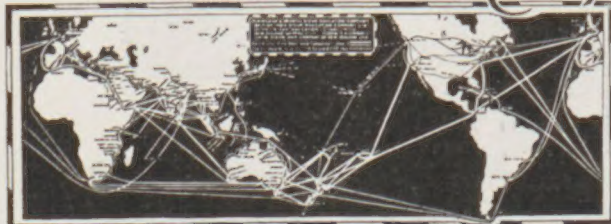
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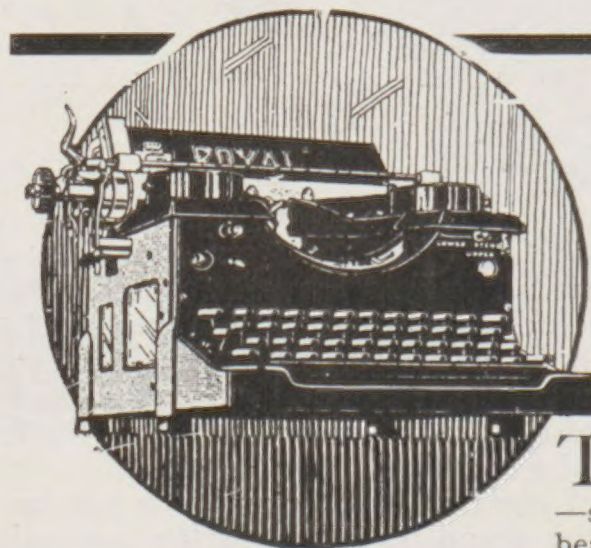
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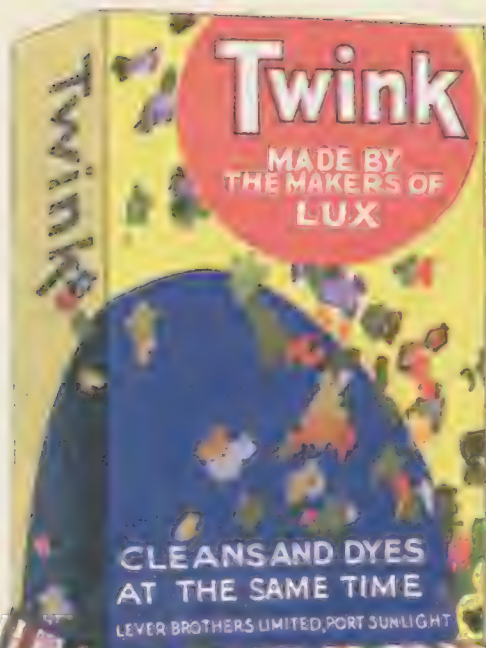
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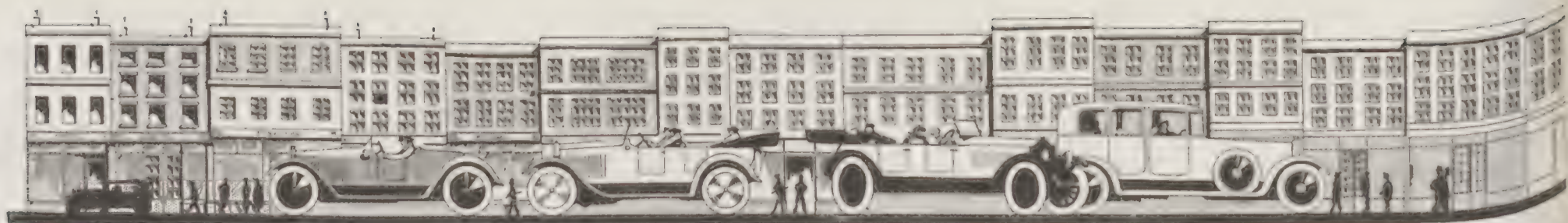
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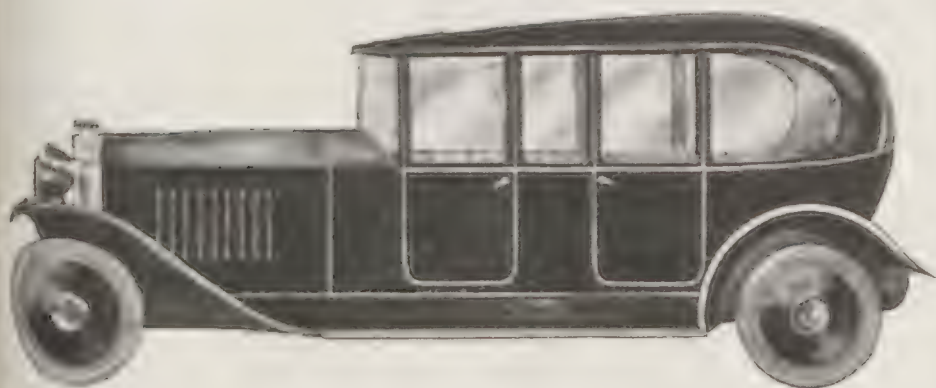
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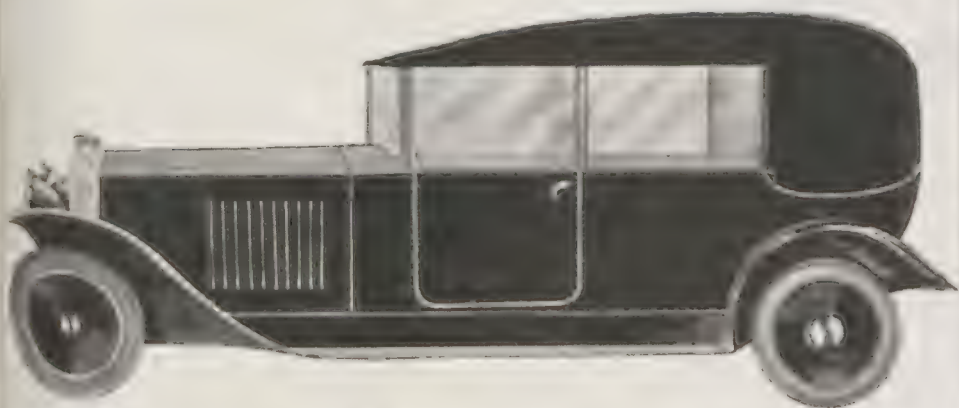
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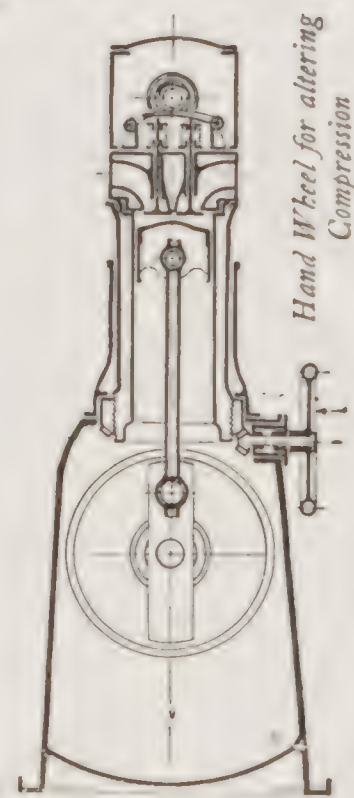
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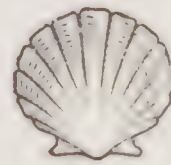
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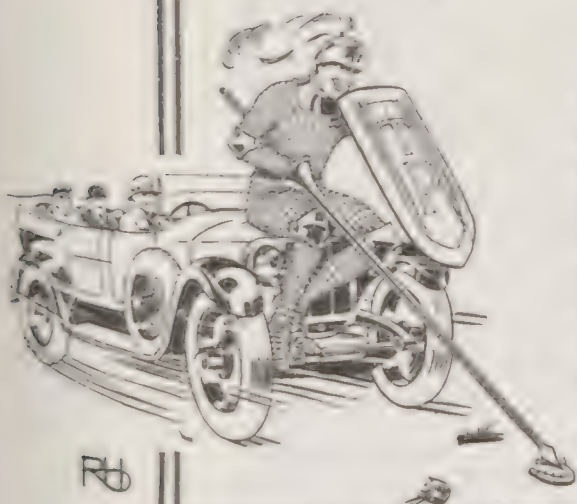
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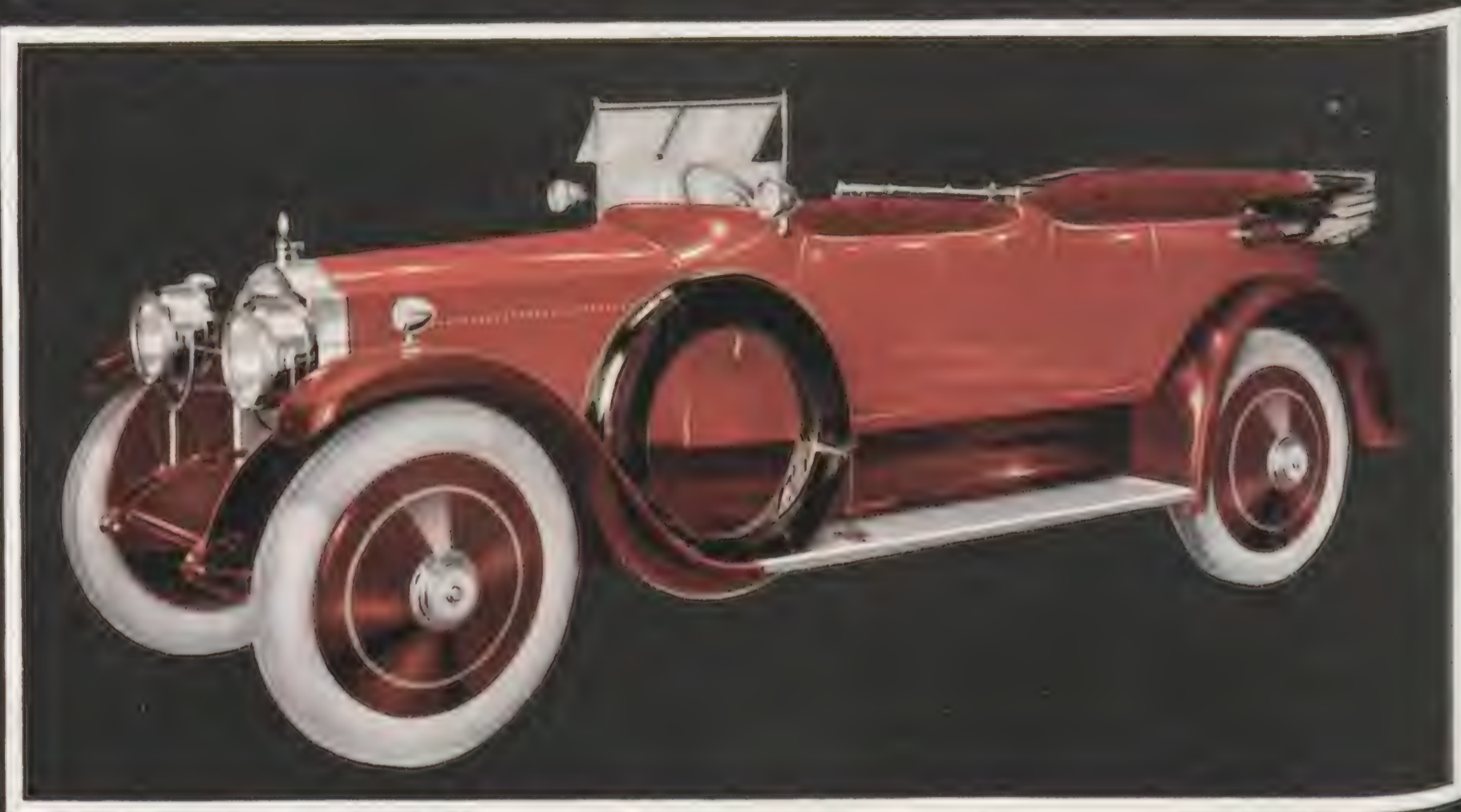
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THE MOTOR-OWNER

MARCH
1922



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Subscriptions should be directed to the Publisher at the above address.

The Editor will be pleased to consider contributions of special interest to the car owner, provided they are of high quality and in every way suitable to the magazine. Short illustrated articles are preferred, dealing with any aspect of private motoring, either as regards touring or the home management of the car. First-class snapshots of roadside scenes or incidents are particularly desired. All photographs and sketches should be fully titled on the backs and bear the name and address of the sender.

Contributions should be addressed to the Editor of "The Motor-Owner," 10, Henrietta Street, W.C.2, and should be accompanied by a stamped, addressed envelope. While every effort will be made to return them if unsuitable, the Editor cannot hold himself responsible in case of loss or damage.

THE NEXT MOTOR SHOW.

THE TRADE RETURNS.

Now for the Exchequer. We are all agreed that the present principle of automobile taxation is iniquitous, inequitable, and so on. We have said it all ourselves more than once, and there is no occasion to repeat the various possible and justifiable strictures. But have our readers noticed the effects of that taxation on the national prosperity? The government of a country should be expected to pull the nation out of, rather than push it into, impending bankruptcy. And yet the trade returns affecting automobiles for January last are eloquent—and tragic. Imports of motor cars exceed exports by a considerable sum, which is bad; but exports have dropped by £367,000 as compared with the corresponding month of the previous year, which is worse. Conditions are further reflected in the shrinkage even of imports by more than half a million pounds. That also is bad, for we are not able to state that the deficiency in imports is accounted for by a wave of prosperity in the home industry in regard to its home demand. If this were so, we should rejoice, but the

figures of petrol imports unfortunately do not support this view, since the quantity coming into the country in January, 1921, was more than six and a quarter million gallons greater than in January of this year. There is no need to be alarmed by these facts—we were aware of them, or, at least, of what the figures were likely to be, before. We were all aware that the motor industry of this country had passed through a very critical, and is still passing through a difficult, time. But the position is just as those two adjectives indicate; it is improving—although we are far from out of the wood yet—with a steadiness that promises continuance, rather than the oscillations from extreme prosperity to dire poverty that have caused disaster in the recent past. The industry is at last, in fact, established upon a sound basis. But the pity is that we ourselves, in so far as we deliberately appoint our own law makers, have made many of our own difficulties. We have assisted to cripple ourselves by imposing upon ourselves taxation manifestly inimical to the industry it concerned. We have,

in effect, kicked ourselves when we were down. Is it not absurd? And the marvel is that, though the "kick" remains, we have struggled to our knees before the full count, and are in a fair way to get upon our feet again.

THE NEXT MOTOR SHOW.

Apparently this year the annual Motor Show will once again find itself housed under one roof, which, from the motor-owner's point of view, is certainly an advantage. The organizers of the show made the disabilities of the dual shows at Olympia and the White City as light as possible, but, even so, it is to be feared that the latter was neglected by visitors. There appears to be some little doubt as to whether the necessary extension to Olympia will be finished in time; and, if finished, whether the hall will not still be inadequate. Doubtless the trade society responsible for these matters has thoroughly considered the whole question many times—although, not, so far, with brilliant results—but there will be many who wonder, with us, why the show cannot leave Olympia altogether for a more suitable home.



The First Speed-Limit Violation.

THE RETURN OF LUXURY.

Is the present light-car vogue merely transient?

By Capt. E. de Normanville.

THE outlook of mankind on the general affairs of the world is made up of three types: the optimist, the balanced view, and the pessimist. Of course, the best of the lot, and by far the most valuable outlook, is that of the medium class which can weigh up matters with an undisturbed balance and apart from any ulterior hopes or fears of a personal character. I confess that I do not lay claim to any such distinction. As a matter of fact, very few people can fail to be either optimistic or pessimistic. It is a matter of extreme difficulty to study matters of general import without being swayed one way or the other by one's personal feelings.

Taking a choice between the two less praiseworthy classes, I prefer to enrol myself under the banner of Optimism. You may tell me that under the conditions recently obtaining there can be little if any justification for such a belief. Yet I hold it—and I want to talk to you about one of the results which will accrue if that belief proves well founded.

I want to foretell the return of more luxurious motoring. Even though you ridicule the prophecy, you will grant that in these days it is a pleasing fantasy. But I am quite serious in making the forecast. I believe that the present all-prevalent sway of the small car of economical type is a transient vogue. It is a vogue actuated not by desire or taste, but impelled by circum-

stance. I want you to note that difference very carefully. Why does one spend money on the purchase of a motor-car? It may be as a business asset or as a health-giving amusement. More generally it is a combination of the two. Having got that motor-car, what does it do? In bald finality, it moves you from one place to another. It renders a species of service for personal locomotion, at a speed which is not remarkably variant on an average, and at a cost which is variant. Those are the essential characteristics of the proposition. You may be moved from place to place in one of several different detail methods; but the result is the same—you can get from one place to another in a roughly equal time irrespective of the type of car used.

Now, it is important to note that two people can be moved from one place to another 50 miles away on a small car costing £200 to £300, in much the same time as they can on a car costing ———. The actual practical result is exactly the same in both cases. It is not, therefore, in

the practical nature of the result that one must look for a difference in car cost which can be warranted. If it were, car manufacture would settle down to one specific type embodying the practical essentials only, and cost would become a substantially fixed item in much the same way as a loaf of bread.

It is reasonable, therefore, to deduce a cause for choice between the two extremes of car cost which is wholly unrelated to practical result. The actual reason may have many indirect minor incidences, but all are covered by the personal element and the one word "choice." And "choice," in turn, is closely related to the word "desire," though circumstance may step in on occasion to widen the relationship. I submit that that is precisely what we have around us at the present time in the motoring world. Though the war has changed many things, it has but little altered human nature. Our desires are still much as they were, and, unless we curb them, our choice would follow our desire. The man or woman who would

normally have preferred to do the same thing as their neighbours, but in a different way, would still prefer to act thus. The man or woman who liked luxurious surroundings still likes them, desires them, and would choose them if the choice were practicable.

It is not, therefore, our desires that have changed in regard to motoring. The apparent similarity of choice in purchase is not natural—it is



A scene at the luncheon stop at Banbury in the recent Economy Car Trial held by the Midland Light Car Club. A fifty-guinea silver cup presented by THE MOTOR-OWNER for the best all-round performance was won by Mr. Rex Mundy on a B.A.C.

POSSIBLE IMPROVEMENTS.

forced. Large numbers of the people who are now buying small cars would, under more normal circumstances, buy large cars. It is the force of financial stringency which is responsible for a considerable section of the army of small car purchasers which is so pronounced a vogue at the present time.

If, therefore, my belief in the gradual return of improved industrial conditions materialises and carries in its wake (as it must do) the increased spending power of the public, then we shall see a new and stronger demand for luxury motoring. There will, of course, always be a big demand for the remarkably good economical small car of to-day, but many a buyer at the present time of a £500 car will then buy a £2,000 car. As a financial possibility he could do so to-day; that is to say, he has, or could arrange to have, the necessary capital at his disposal. The point is that he dare not spend it. His choice of a motor-car, therefore, is not really a "choice" but a selection made under the force of circumstance.

It seems to me that neither the public nor the industry takes much cognisance of the impending renewed demand for luxury motor-cars. What will the public want, and what will the industry be able to offer? We know that the small car has improved immensely in the post-war period. When compared at its present price with its pre-war equivalent for the purchasing power of a pound sterling, the small car of to-day is immeasurably the better value. Who dare say this in regard to luxury cars? Even many of the medium-priced cars have nothing to boast about in this connection. And yet more luxurious performance will be demanded, and more luxurious equipment.

I am tempted to ask, therefore, whether big luxury cars have made less corresponding advancement than small cars. I do not wish to discuss the why and where-

fore, but merely the fact as a fact. If you answer that the demand being all the wrong way is against the possibility of being able to develop the luxury car, the explanation may be thoroughly sound. But it does not get over the fact. What, then, does the future hold in store by way of improvement in luxury cars? We have, of course, such magnificent vehicles as the Rolls-Royce, Napier, and Packard, and all the beauty and comfort of their correspondingly magnificent coachwork. That is undoubtedly luxury in motoring, so far as the movement has gone.

But what will the public require in further improvement, not only in such super-cars, but in more or less anything costing well over £1,000? Surely, for example, the springing could be much improved by a separate mounting of the body on the chassis, preferably through the medium of compressed air. Here is a large field of potentiality for improvement. Then, again, we have noisy gearboxes; we still have more vibration passed through to the passengers than is unavoidable; we have brakes that are noisy when they could be silent—and so on.

For the British car to maintain its supremacy, such developments and improvements should be in the forefront of the public mind and under the constant consideration of the industry. The very time when demand is under a temporary slump is the very time to consider such matters so as to strengthen the need for the

type, when the demand again begins to grow. That a growing demand for luxury motoring will come along again is a belief which I hold most strongly. And both the public and the industry should be preparing for it, the one with conceptions and ideas for improvements, and the other with ways and means for effecting them.

SERVICE EXTRAORDINARY.

One has often wondered at the ubiquity of the Exide battery, and speculated as to the reason. One rather suspected that this was not merely the magnitude of the manufacturers' output nor the admitted excellence of their product. Outstanding success is usually based on efficient organisation, granted the original efficiency of the article sold, but the inner meaning of the word "organisation" in the case of the Chloride Electrical Storage Company, the makers of the battery in question, was told at a recent gathering. It means Service. Exide batteries are liable to breakdown, through misuse, if for no other reason, but the culpable, if unfortunate, owner need not be "hung up" for many hours. Everywhere that Exide batteries go throughout the world service depots are established. There are, for instance, 200 agents in England; in America they are beyond compute; and from what we are told it is scarcely possible on this small globe to get completely out of touch with the service organisation. A thoroughly good article deserves equally good service—that is the maxim of the Chloride

Company, and the real reason of its success. And that service promise to be better than ever, for the concern has moved into the magnificent building known at various periods as Cadillac House and Daimler House at 219, Shaftesbury Avenue. We were shown there the detail construction of an Exide battery, which, far from being the somewhat dry subject that might be imagined, is full of interest.



One of the tests in the Midland Light Car Club's "Economy Car" trial, in which THE MOTOR-OWNER Cup for the best all-round performance was won by Mr. Rex Mundy on a B.A.C., was to drive a mile, change a wheel and a plug in 15 min. or less. Wheel-changing on a Bayliss-Thomas is shown above.

A TWO-GUINEA PRIZE FOR THE BEST CAPTION.

W A N T E D — A T I T L E .

"The Motor-Owner" offers a small prize of two guineas for the best title for this picture, blending humour with a motoring application, sent in by a reader before March 15th. The "caption" below suggests the style of thing we want, but we are sure that the nimble wits of our readers can evolve something better than this.



A Converted Two-Seater.

SOME OF THE NICETIES OF THE L

A Car in which the Protection of Passengers and the Convenience of the Owner

MOTOR cars nowadays are much of a muchness, and although they have reached a high standard of excellence a single specification stands, in its broad details, for half-a-dozen different makes of any particular type. It is the more refreshing, therefore, occasionally to encounter a vehicle which has more individuality of design—a car in which the comfort of the driver and passengers, and particularly the convenience of the owner-driver, has been specially thought out and not merely provided on conventional lines.

Such a car is the latest 15.9 h.p. Humber. We will content ourselves as to the performance of the car by saying that it is beyond criticism; that the Humber is in the front rank of British productions, with all that this conveys, and devote our remarks rather to individual points of excellence—with which, be it said, the Humber bristles.

Just as this make was the first to adopt electric lighting in its standard equipment, so it has originated standardisation of protection for the rear passengers. It must have required a good deal of enthusiasm all these years to secure enthusiasm for all-weather motoring in the back of a car—as witness the eagerness of nearly every rear passenger to change into the seat beside the driver! In the case of the Humber, the protection takes the form of a hinged mahogany cowl carrying two separate glass screens. These screens can be quickly detached and slid into lined receptacles in the cowl. The latter completely eliminates those mischievous draughts which normally tend to pluck the carefully-adjusted rug from the knees of the back passengers.

A part of most motorists' equipment is a petrol power for attachment to the cars. In the Humber, this useful article is attached to the tank orifice, and lies out of the way in the tank itself when not in use. An accurate gauge is also fitted. The convenience of the owner-driver has been thought



The rear screens are easily detachable (above), and stow away into a receptacle in the cowl. A special compartment under the driving seat (below) houses the side curtains.



A self-locking bracket holds the front seat up while the curtains are being stowed away.



OF THE LATEST 15·9 H.P. HUMBER.

gers and the convenience of the Owner-Driver have been given unusual attention.



There is never need to remove any of the side curtains (above). The rear cowl, which is hinged and lifts up to allow access to the seats, affords much-needed protection.



In addition to the protection of the cowl, it forms a very useful table on occasion.

out and provided for in regard to the tool equipment also. Those articles most likely to be required—the jack, wheel brace, and an oil can—are clipped firmly under the bonnet; the tyre pump is carried in a leather flap at the back of the rear adjustable footboard, and the remainder of the tools are secured in a hinged flap in the lower half of the front door.

The all-weather hood and curtains are deserving of praise, and the provision of a special locker for the curtains under the front seat is an excellent idea. The six curtains can be erected in a very short time and the car is then to all intents and purposes an interior-drive saloon, since the curtains open with the doors.

An oiling chart, mounted upon stout card, is sent out with every car, and by following instruction the least mechanically-minded owner cannot go far astray in the maintenance of a Humber. This, of course, is not a feature peculiar to the make, but it is one that is given far too little attention.

On American cars an air-choke is quite a conventional gadget, but it is infrequently fitted on British vehicles; a "strangler" is nevertheless an essential for easy starting in cold weather—and it finds a place on the Humber dash. And, while we are dealing with the dash, attention may be drawn to the great convenience of the two small drawers and the locker which are provided for the carrying of small articles.

Among the many niceties of Humber design we should be inclined to place the ignition lever, which, when fully retarded, serves as an engine switch. This combination is convenient, and incidentally is something of a protection against backfires if the engine is started by hand.

Taken altogether, mechanically the Humber is a wonderfully efficient means of transport, simple and economical to maintain; and it is one of the most comfortable and completely equipped cars at present on the market.

THE GREAT ADVENTURE.

An Endeavour to Assist the Novice in Taking "The Guess" out of Touring.

THERE must be many owners of motor-cars who, having become possessed of their vehicles at some period subsequent to last summer, have never yet tackled the Great Adventure of a tour. They have had many out and home runs, and maybe a more ambitious week-end trip or so, and have thoroughly familiarised themselves with their cars.

They have acquired a sufficiency of road knowledge to give them the necessary self-confidence—but they have never been out of touch, as it were, with their "base"; never have been entirely dependent upon their own resources.

Actually there is little difference between being a mere couple of hours or five hundred whole miles away from home so far as the behaviour of the car and the action required to put it right in case of trouble are concerned, but in the mind of the novice the two conditions are widely separated.

To set off, day after day, always showing the back number-plate to the home trail, is a great experience, almost a landmark, in the education of the motorist.

Everyone at some time gets the feeling that the longer the car runs without giving trouble the nearer it is getting to an inevitable breakdown. That breakdown is not inevitable if a good car is given reasonable care is beside the point. The novice wonders on which particular afternoon he is going to obtain his first experience of a roadside repair. But each afternoon sees his bonnet pointed homeward, and each mile that slips beneath the wheels makes it easier, in case of complete breakdown, to get home by train or other means. It doesn't really matter, probably, whether one gets home or puts up at a good hotel in the nearest town; and, anyway, the breakdown never happens, but there is a nice, comfortable, *safe* feeling about being homeward bound, and more particularly still, about reaching home. This

the novice fears will be conspicuously absent on his first tour.

Now, to extract the utmost happiness from a tour, that lack of confidence must be banished at the outset, or the black dog will be an unwelcome extra passenger. If the car is not thoroughly reliable, don't even dream of starting; if it has given no trouble up to the moment, trust it. Take all reasonable precautions, naturally. Look at the matter from a business point of view. If there is a member of your staff who has proved himself efficient, you let him get on with his job without worrying him. If you don't, you're not a good employer. A good car is a lot more reliable than the best of human beings, and its output of work is practically unlimited. Therefore, trust it.

If it has been in use some time—or even if it has not—have the base chamber, gear-box and rear axle casing drained, swilled out with paraffin and refilled with clean lubricant; but be sure that *all* the paraffin has drained out before putting in fresh oil; have

the cylinder and piston heads decarbonised; even have the accumulators properly charged and attended to for once if there is the faintest reason for it, and, much more particularly, see to the tyres.

Tyre troubles are much more likely than mechanical failure to spoil a tour, and it is such a simple matter to give each cover the first-aid before starting that may save a surgical operation *en route*.

Needless to say, a more than usually thorough greasing up of all spring shackles and universals should be performed, and, if the brakes are in need of adjustment, this should be attended to before starting.

Two spare wheels complete should invariably be carried, and at least one of the tyres on those wheels should be quite new. Even new tyres have been known to burst in their first few miles, but that is a very unlikely thing to happen—and one can only pray that when it does occur it will always be to someone else.

There is no need here to go into details as to the proper care of tyres, but there is just one point, usually overlooked, that ought to be mentioned. Every time an inner tube is punctured, even though it be by a thin wire nail, a hole has been made through the cover. Usually the nail is removed, the tube patched; the tyre is inflated and the wheel placed on the "spare" carrier. Eventually it is used, wet gets in through the tiny hole, rots the canvas and the cover bursts, probably beyond repair. Result, several pounds are spent on a new tyre complete, simply through failing to observe a simple precaution. The moral is obvious: a punctured tube means a punctured cover; repair both, and not the tube only.

One further tyre precaution may be mentioned. Don't be content with two complete spare wheels; carry also, properly packed, a couple of spare tubes, even if only on the principle that it seldom rains when one is carrying an umbrella.



Spare plugs should not be carried loose among the tools. A good method is to screw them into this holder, made by the Gulson Engineering Company, of Coventry. The holder is bolted to the dash, beneath the bonnet.

SOME PRACTICAL NOTES.

Every novice makes quite sure of having a good stock of spare parts, such as a couple of valves and springs, a cylinder head gasket, a reel of copper wire, a new sparking plug or so, and, in fact, the usual equipment. As likely as not, however, there is not an inch of string on the car; a ball or hank of good stout cord is a remarkably useful thing—hood and luggage straps have been known to break. And one would not be surprised to find that spare head, side and tail bulbs have been forgotten.

Then there is that little matter of petrol. The wise tourist has his tank filled up each morning, and knows that he may reasonably reckon on perhaps a couple of hundred miles before requiring a refill. But a stone may puncture the petrol tank, or a pipe may fracture; and this is sure to happen, if happen it does, in the middle of Dartmoor, or some equally convenient place. Here again, experience dictates the carrying not of one, but of two spare cans, painted the colour of the car, and fixed on the running boards by one or other of the several inconspicuous and sound carriers that are obtainable. If the car likes a mixture of petrol and benzol, one of these cans should be kept full of pure benzole, since there is some difficulty in obtaining this fuel.

The car is already equipped, of course, with a good petrol filler, if this device is necessary, but most owners neglect to provide an easy means of emptying lubricating oil into the engine base. A spare can of oil, either sealed, or at least stoppered securely, should be carried, and this can usually be accommodated somewhere under the bonnet, so that the heat of the engine may keep it reasonably fluid.

In regard to lubrication, it should be noted that although an engine may consume only a gallon of oil every thousand miles or so, it is unwise to trust to previous experience in this respect when touring. Some time in the course of each day—not first thing in the morning when the oil will be cold and difficult to pour—a sufficient dose should be given to the engine to bring the level up to the maximum mark on the indicator. And remember that the use of



The Humber method of carrying the tools most likely to be required on the road—the various parts of the jack, and an oil can—is one that can be adopted on almost any make.



cheap oil is not economy. Only the best, no matter what the price, should be used.

The tools to be carried need not differ from the ordinary equipment, except that the owner has probably discovered already that the set supplied with even an expensive car is frequently of very poor quality. A pair of good adjustable wrenches, therefore, may require to be added to the set. Pliers are usually more reliable, but box spanners, and especially the tommy bar, are often made of soft metal. The tool kit should be well overhauled, and all useless articles thrown out.

For comfort the tool roll should be scrapped, and a box, with a separate compartment for each tool, obtained. Nothing is more irritating when a small roadside job has been completed than to have to replace all the tools that have been used or displaced from the ordinary tool roll. They are mostly just "lumped in" anyhow; and the next time a particular tool is required it is found, after a long search, to have dropped out of the roll and hidden right at the bottom of the locker. A properly made tool box encourages one to keep the contents clean, which is an advantage. Only the tools required need be disturbed, and it is a simple matter after use to wipe and replace each one in its obvious compartment.

With regard to the more commonly used tools, the Humber plan of fixing the jack, wheel-brace, oil can, etc., on the engine side of the dashboard, under the bonnet, is a good one, and can be adopted on almost any car. It is convenient also to keep a screw-driver, a pair of pliers, a piece of clean rag and a small adjustable spanner in one of the door pockets.

It would be possible to write a fair-sized volume of "hints and tips for the motorist about to undertake his first tour," but, short of that, there is really very little need to say more. We have endeavoured to indicate rather the kind of attention required than the actual operations to be performed. Beyond this, the motorist will probably derive more pleasure from the exercise of his own common sense and ingenuity than from the mere slavish following of cut-and-dried rules.

T H E B R U S S E L S F A I R .

A World's Fair in a Beautiful City—Motoring Exhibits one will do well to See—How to Get There.

By Clive Holland.

THE Third Official Commercial Fair, held and organised by the Municipality of Brussels, will take place from April 3rd to April 19th, in the Parc du Cinquante-naire, under the patronage of H.M. King Albert and the general presidency of M. Adolphe Max, the world-famous Mayor of Brussels.

The success of previous fairs augurs well for that of the present one. Last year the number of exhibitors was 2,347 as against 1,602 in 1920, and the space occupied by exhibits grew from 19,000 square yards in 1920 to 30,260 square yards last year. These figures are likely this year to be exceeded largely.

Not only will Belgian industries and manufactures be well represented, but those of many other countries and even overseas colonies also. As in the Middle Ages Belgium was the commercial *entre-pôt* and central point towards which trade routes focused, so a renaissance, leading back to pre-war prosperity in trade and industries, makes Belgium to-day a country able to offer many inducements in the way of specialities to buy, and markets for the British and Continental trader.

Many well-known British firms have recognised this fact and are sending exhibits, and, doubtless, the new markets that will be opened up will

more than compensate them for the comparatively low cost of exhibiting.

One of the cardinal points of these splendidly organised Brussels fairs is the bringing of buyer and seller into close and direct contact. In the spacious galleries one finds throngs of interested spectators, for the exhibits are not only interesting in themselves but are also displayed in the attractive manner in which both the Belgians and French excel. And from previous experiences of similar fairs in Belgium one can safely assert that a great deal of eminently satisfactory business is done.

At past fairs there has been a truly cosmopolitan gathering of visitors. The well lighted alley ways between the stalls or stands have been thronged

during the hours from 9 a.m. to 6 p.m. with buyers or the merely curious. The latter, however, are present because it is realised that there is always so much worth seeing and knowing.

Only nationalities who have entered the League of Nations will be allowed to exhibit. But this does not prevent a babel of tongues, for the nations outside that group are at the present time at all events negligible.

Just as all the great Continental railway systems seem to converge upon Brussels—here are some: Lisbon, Madrid, Bordeaux, Paris, Brussels; Naples, Rome, Berne, Brussels; Constantinople, Sofia, Belgrade, Budapest, Vienna, Cologne, Liège, Brussels—so do visitors from the most distant portions of the Continent come to the

pleasant city, which has been aptly named "Little Paris," to trade and, incidentally, to enjoy themselves.

They do things well at the Brussels Fair, for we learn from the prospectus that a wooden floor and carpet are included in the cost of exhibition floor space.

In the list of groups represented in the fair are most of the natural, commercial, and industrial products which go to the making up of modern life with its myriad demands, necessities, and interests.

Naturally, motorists are catered for. The class including motor cars, aviation,



The Venice of Belgium—A Waterway in Bruges, with the famous Belfry in the background.

A CITY OF CHARM.

and cycles has always been well represented, and in the present fair is more than usually so. To the motors, aeroplanes, and cycles must be added all accessories (and some of the Continental "notions" are worth seeing and having), and the sections devoted to rubber, textiles, clothes, and wearing apparel, photography, electrical and mechanical industries, to say nothing of decorative arts, in which Belgium excels, and inventions and novelties are all of them well worth seeing.

One or two makes of Belgian cars show excellent records for reliability and wearing qualities, especially on heavy and rough roads.

Fashion plays no insignificant part in the Brussels Fair. For the wives and daughters there are frocks, frills, and embroideries, and, above all, lace.

Belgian roads are fast recovering from the ravages and ill-usage of war. They may not yet be in ideal condition, but are many of our own roads what they once were?

Belgium in April is delightful if the weather is seasonable. The country is fresh. The trees are a trifle fuller in leaf than with us. For a long way inland from Ostend there is a tang in the air that the North Sea gives which brings colour to the cheeks of the lady in the car, a brightness to the eyes, and a feeling of well-being that should come with the spring.

Bruges and Ghent are well worth a visit. The former is a city of exquisite charm and unflinching interest; the latter a place where the old order and the new are in eternal conflict. Where industry is striving with the spirit of the past, and where the modern tram runs down streets containing houses which Edward III, the father of John of Gaunt, possibly looked upon.

Brussels itself will be *en fête* the whole period of the Fair. At all

times it is one of the pleasantest of cities in which to spend a holiday, and this April will be even more attractive than usual.

The great Boulevards and principal streets will be thronged with bustling crowds of holiday makers and pleasure seekers; the ancient and picturesque Grand' Place will be gay with flowers—for one of the most famous of European flower markets lends it perennial charm and colour—and that focus of all the city and suburban trams, the Place Charles Rogier, flanked by its huge hotels, will be yet more animated and kaleidoscopic.

Do you love art? Then you can take your fill in the galleries of Brussels. Are you fond of woodland excursions such as Paris affords in the Bois de Boulogne and Bois de Vincennes? These you have here in the beautiful Bois de la Cambre and Forêt de Soignes, both noted for their wonderful beech trees, shady glades, and pleasant restaurants.

Visitors to Brussels will do well also to take a look at the lower town and the quarter of the docks, where there are still many interesting corners, examples of picturesque architecture, and, above all, those types which

make Continental cities so interesting to the stranger. Here may be seen not only the humdrum life of commerce but also those pictures which are formed by vessels of various rigs that are found in all great ports.

Special railway facilities are offered by the S.E. and C. Railway and Belgian State Railways to intending visitors to Brussels and the Fair. And 15-day excursion tickets to Brussels *via* Ostend will be issued daily from Wednesday, April 12th, to Monday, April 17th, in connection with the Easter holiday season. The fares are: second class £2 16s., third class £1 16s. 7d.

While over in Belgium season tickets, available for 15 days, extending over all the Belgian State Railways systems, are procurable at the following rates: First class, 230 francs (at present rate of exchange, say, £4 15s.); second class, 150 francs (say, £3); third class, 90 francs (say, £1 16s.). Tickets for 5 days can be obtained for a little more than half the above prices. A photograph about 1½ inches square must be supplied by the holder for placing on the season ticket.

Cars can be taken over by the Dover-Ostend route at very moderate rates, and special facilities are offered for motorists wishing to do so and travel to Brussels or tour in Belgium.

At the Official Information Office for Foreigners, 19, Grand' Place, Brussels, all particulars of the Fair can be obtained, and also at the Belgian State Railways, 47, Cannon Street, London, E.C.4.

In Brussels arrangements have been made by the Fair Committee to book rooms for intending visitors in hotels, and lodgings in *pensions* and private families.

Inquiries, with clear details of requirements, should be addressed to "Lodging Department," 19, Grand' Place, Brussels, Belgium.



The flower-market in Brussels is famous all the world over. It gives colour and charm to the historic Grand' Place.

ÆSOP TAKES A HAND.

Æsop called a few days ago at Tenrietta Street with this manuscript and insisted upon our reading it. The aged philosopher is as sprightly as ever—apparently he has struck a pre-war brand of Elixir Vitæ. It occurred to us that this yarn may have been written under the influence of an overdose, but Æsop said that was his business; that the characters are easily recognisable, anyway, if you twist the letters round.

[Curtain rises upon a bare and squalid room, with a floor of beaten earth. Only prop., dirty deal table and five tumblers, centre. NAIL ŪJ EDRO paces distractedly back and forth, wringing her hands.]

NAIL (wailing pitifully): Where, oh where can they be?

THE OTHERS (trooping in from O.P., singing lustily if not tunefully): Here we are then; here we are.

[NAIL dries her tears with a corner of her yashmak, adjusts her nose-piece, and all five group themselves on the floor.]

ÆSOP (taking a seat, with his customary modesty, in the centre of the group): Talking about the hotel question—

EL GEDEF (interrupting, but quite unconscious of offence): The greatest trouble with intensive culture—

NOSPAR (solo, and equally innocent): "Somewhere a voice is calling," and d'you know what it is saying? It is saying: "Nospar, proceed, and anon thou shalt count thy cattle by the hundred thousand, yea by the million!"

NAIL ŪJ EDRO: And, I hope, thy wives by the three score and ten?

ALL (in unison): Blessed be Suleiman.
[They rise and, holding glasses on high in right hands, circle slowly round the room; each takes the seat upon the floor of his, or her, previous right-hand neighbour. NOSPAR then rises in protest.]

NOSPAR: Look here, Nail, I believe in all these observances as well as the next man, but there's no need to break into an interesting discussion.

THE K.E.C. REP. (à propos de rien): Pray charge your glasses, friends. It's on me.

[The action is delayed while the necessary service is performed. There are no protests.]

NAIL: Well, Nospar, you were saying—?

NOSPAR: That I want this distinguished company—

[All rise and bow three times.

A ROMANCE OF ARABY IN ONE ACT.

Dramatis Personæ.

Æsop E't Nesr Pretiru.
Nospar el Azim... Tsûj Lufrednow
(vide Daily Press).
El Gedef Swyn ... A breeder of the
sacré cochon.
Nail ūj Edro ... Ydalon (a Græco-
Roman devotee
of Terpsichore).

The Catch-as-Catch-Can Representative of the
Kens Entoso Co. The last word in
efficiency.

A Mailed Figure .. Ibrahim ben Geddes
and

A Djinn Hyloto Nair.

Scene: The only gasthaus on the main
export track from the Land of
Ingiliz.

Time: The present; comparative soli-
tude is enjoyed.

(Dresses, spotlights and so forth, by
"The Motor-Owner." Complaints, if
any, should be made to the Manage-
ment between the hours of 11.30 a.m.
and 3 p.m., or 5.30 p.m. and 11 p.m.)



NOSPAR (continuing):—this company to give its serious attention to the question of headlights.

[Loud cheers from all but Æsop, who, noticing belatedly that his glass has escaped the general charging, looks doubtful.]

ÆSOP (hopefully, but too proud to ask): A "starboard light," now, I can appreciate, but I'm a little dim as to headlights. What are they?

THE K.E.C.R. (A.A. for short): Why, Æsop, don't you read your own

sheet? My firm had a bit in it the other day—

NAIL AND NOSPAR (in chorus): So did we!

EL GEDEF (who has been scribbling in a notebook, and is disturbed by the clamour): Headlights? Unnecessary luxuries on a light car! Cut 'em out—you are always switching 'em off, anyway.

NAIL (triumphantly): That's just where you're wrong. They used to, but since I said that in future no headlamps must be switched off—well, of course—(blushing vividly through her yashmak, which she persists in wearing though the night is warm—too, warm, she says, to leave much off)—I don't want to boast, but it is so.

ÆSOP (gently, according to his wont, whatever that may be): Everybody dazzles everyone else? Do you really think so, Nail?

[NAIL is still somewhat confused—she hates talking about herself—and NOSPAR comes to the rescue.]

NOSPAR (breaking into song):

Don't dim your light
Or switch off quite,
For the sake of Auld Lang Syne.
Just make 'em dip
On every trip—
You'll find it answers fine.

[This simple song is succeeded by silence so sustained as to suggest sincere and not simulated sorrow.]

NOSPAR (undaunted, undiscouraged, and a little fierce): Ha!

NAIL (quoting): "'Ha!' he hissed"—though how can one 'iss a haspitate?

NOSPAR: Quite so. But you don't seem to admire my friend Yrrah Redual's latest song?

K.E.C.R.: Well, since you put it like that, personally I don't see much point in it. If Redual studied the pearls of wisdom that emanate from my publicit—

—BUT SHALL TAKE AN OCCASIONAL DOSE OF COMMON SENSE.

EL GEDEF (*waking up again*): Pearls? I should choose pearls before swine any day, but what is one to do? No so long ago I could easily reckon on half-a-crown a pound, and could produce unlimited tons, whereas even the biggest pearl farms had a comparatively small production. Now the best price for pork—

NAÏL: But what's that got to do with headlamps?

EL GEDEF: Nothing much; but I can see a dazzling future for any man who goes in for the intensive culture of a stripped—

NAÏL (*blushing for the second time*): El Gedef, I am surprised at you!

EL GEDEF:—light car at a moderate price, my dear. Don't jump to conclusions; remember that honi soit to him that mal y pense, as it were.

NOSPAR (*positively itching to get into the limelight again, dazzle or no dazzle*): Yes, that's what I say. Nothing but essentials. But those essentials must be the best. A hood that will rise by a hand's turn, a jack that can be operated by a child, tyres that cannot puncture, and lamps that surpass the old régime for courtesy.

K.E.C.R.: Courtesy—that's what we are after, beginning with a salute from our road agents and ending with courteous behaviour amongst our clients. My firm has been the greatest influence for good in this respect—

NAÏL (*rising lithely and adopting expression of panther defending young*): That is the watchword of my tong. Have you not seen the inscription above our chaste portals? It runs:

Φορ Κουρτεσι κομε το Καρλτον 'Ουσε Τεppas.

ÆSOP: Spell it, dearie. It sounds like 'Or—I mean Horace. Grea' frien' o' mine, 'Orace.

NAÏL (*disregarding the interruption*): Courtesy is the keynote of all our actions. But if courtesy interferes with safety, I say cut it out.

Prolonged applause from all four. ÆSOP on all-fours, retrieves his glass, which has rolled under the table, but, tripping over his burnous, has to be retrieved in his turn. He subsides gently and sleeps.

K.E.C.R.: Look at your glasses, friends. That's what's the matter with ÆSop!

NOSPAR: Waiter, waiter! Where the deuce has the fellow got to? Well, I've never been done yet.

[*Groping in the folds of his turban, he produces a miniature dipping headlamp, a tin of Brassbell, and a piece of cotton waste, and rubs the lamp vigorously. Off stage the "Honk! honk!" of a motor horn is heard and an armoured car enters from the wings. A DJINN descends from the driving seat and bows low before NOSPAR.*

DJINN (*proceeding con amore with his genuflections*): Hail, good master. I am thy servant and must obey thy will.

NOSPAR: Halt! 'Shun! Now, good Djinn—

ÆSOP (*sleepily*): Double, an' Italian, miss.

NAÏL: Shut up, Æsop, you're dippy, you greedy pig!

EL GEDEF: Eh? Who said pig?

K.E.C.R.: Courtesy demands that you should say "I beg your pardon," surely, El Gedef; especially when you're talking to a lady.

[*THE DJINN here shows signs of impatience, swells to monstrous size, and attracts the attention of NOSPAR.*

NOSPAR (*nervously*): As you were!

[*THE DJINN shrinks.*] Stand easy! Fall out and refill our glasses—not Æsop's, you fool—

THE DJINN: Pardon me, master, but that is a discourteous epithet even from your Sublime Highness to the mean dog that I am.

NAÏL: Oh, cut all that out and fetch the doin's!

K.E.C.R. (*sarcastically*): H'mph!

NOSPAR: Now, you two, you mustn't quarrel. Can't you work amicably together *pro bono publico*? Why not amalgamate?

NAÏL AND K.E.C.R. (*together*): Never! Never!! Never!!!

EL GEDEF: Don't speak on impulse, good people. Think! In saying "amalgamate," no doubt my friend Nospar—Nospar el Azîm, whose words are worthy of respect—

[*All sink upon knees and touch floor with forehead before Nospar, who accepts the honour with complete sang-froid. He caresses his patriarchal beard, rises and bows solemnly.*

EL GEDEF: I repeat, his words are worthy of respect, for he is a power in the land since he has been ordered

East. He does not wish you to go the whole hog.

NAÏL (*impatiently*): Can't you keep off that subject? And where's that djam din—I mean dam' Djinn?

ÆSOP (*recovering complete consciousness*): If that hog of a Djinn doesn't amalgamate with some Italian pretty d.q., I'll dip him all right.

NAÏL, NOSPAR AND EL GEDEF (*chanting in chorus*): Here he comes, here he comes, here he comes again.

THE DJINN: Musical honours! Such a welcome have I not had since Sheba's days. Now they were days. And nights—!

EL GEDEF (*sternly*): Silence, thou loose-minded fellow. Seest thou not that a light of the harîm honours us with her presence?

DJINN: Sorry, yer worship, but it's a first offence.

ÆSOP (*majestically*): We will pardon thee, knave, an thou producest forth with that for which thou wast dispatched long since. Buck up, there's a good lad.

THE DJINN: Here thou art, then, Great Ones. And 'tis a worthy brew.

[*Pause; silence broken only by the "goggle, goggle" of liquid emerging from an invisible, narrow-necked goat skin. Crystal goblets, fully charged with emerald fluid, appear before each. ÆSOP promptly samples his.*

NAÏL (*hopefully*): O.K., Æsop?

ÆSOP: Huh! Suits me

NOSPAR: Djinn, 'shun! Dis-miss!

[*THE DJINN and the armoured car vanish, and the party settles down again to the discussion, goblets in hands and wary eyes on ÆSOP.*

EL GEDEF: Now, Nospar, we await thy further words.

NOSPAR: Well, what I was getting at is this. The headlamp question is involved. Dip, dim, switch off, don't switch off, buy no-dazzle accessories—none of it's any good unless we all do the same. Which is right? Naturally, I say "Dip" every time.

ÆSOP: I remember much the same problem arose years ago, when I was staying at Castlenau, or Elsinore, or somewhere. To dip, dim, or dazzle, that is the question. Whether 'tis better—

NAÏL: Do dry up, Æsop. You're getting horribly mixed! But what is this strange feeling that creeps o'er me?

THE SOLUTION OF THE HEADLAMP PROBLEM.

K.E.C.R.: Yes, I notice something, too. Thunder about, I fancy.

[All betray nervousness; there is a terrific crash of thunder off stage, lights are lowered, and a flash discloses an awful MAILED FIGURE. Disturbance subsides: lights are gradually raised and figure is seen to be holding a shield emblazoned with the intertwined initials, "M.T."]

ÆSOP (cheerfully): 'Ullo, ol' chap, you're jus' in time for one. You the Minishter o' Transhport by any chansh?

MAILED FIGURE: Cease thy funning, bibulous one. And you others, take note that the Great Ministry hath issued a Proclamation anent this headlamp question which you discuss so lightly. See!

[FIGURE extends mailed arms, there is a roll of thunder, and flash of light, and on the wall of the room in letters of flame appears the aread mandate.]

NOSPAR (reading): "Proclamation:

Take note that we the descendants of the Great Eric do decree that henceforth no automobile shall carry headlamps *per se*—"

ÆSOP: Who's Percy?

NOSPAR (continuing, after an indignant glance at ÆSOP): "—that is to say, the lamps shall illuminate the road to the rear and the off, or right hand, side of the car carrying them. In front shall be carried upon every self-propelled vehicle a speed indicator with illuminated dial of a minimum diameter of three feet—"

K.E.C.R. AND NAIL (in chorus): Wonderful! Why didn't we think of it ourselves?

EL GEDEF: Solves the dazzle problem, in a way, for now we shall only be dazzled by cars going away from us. But you haven't read it all, Nospar.

NOSPAR: No, there's a bit more: "Motoring after nightfall will in future be conducted on the convoy system, and the leader of a convoy of three or more cars will be permitted

to carry a single forward light not exceeding ten candle-power."

NAIL: We thank thee, Ben Geddes. We would take wine with thee—you can have Æsop's: he's asleep again.

[All rise, and bowing to the MAILED FIGURE, drink deep. M.F. raises right hand in salute and vanishes.]

NAIL (in relieved accents): Well, I'm glad he's gone. By the way, do you notice anything peculiar about this drink. I am choking—!

[She rises, staggers to the table and supports herself by it, gasping. ÆSOP rolls over and relapses into complete unconsciousness. NOSPAR, K.E.C.R., and EL GEDEF, clutching their throats, struggle to rise, fail and expire. NAIL sinks in a graceful heap by the table and also "passes over."]

[CURTAIN. ÆSOP composes himself for a real good sleep. It takes something stronger to put him out.]



King Solomon (to reporter): "So you want my views on Matrimony? Well, I have seven hundred wives, and, between you and me, I'm not crazy about any of them."

THE EVOLUTION OF THE WHEEL.

W H Y W I R E W H E E L S ?

Some of the Reasons for the Astonishing Efficiency of this Engineering Miracle.

WHEN one of our unpleasant ancestors, clad only in his natural fur, first put his foot on a log and found that it rolled from under him he made the greatest of all discoveries.

Doubtless, the experiment was painful. It is probable that he fell and flattened a nasal organ already distinctly puggy. His vocabulary must have been unequal to the occasion, for one of the most trying disadvantages of primitive life must have been the lack of words which are so comforting to our cultured selves.

Though made painfully, the discovery of the rolling log was of vast importance. Perhaps hundreds of slightly less woolly generations may have passed before the mechanical principle was applied. It may be that some newly-wed caveman was instructed by his bride to bring home a rock of dimensions suitable for a dining-room table, and, fearing to return to his abode rockless, he may have carried out the first furniture removal by pushing his dining table over rollers.

Possibly, in this manner mechanically assisted transport began. Uncounted generations must have toiled and died before some hairy engineering ancestor constructed the prehistoric pantechicon. Perhaps he wearied of the work of picking up the rollers and placing them in front of his load. The continual stooping may have aggravated the lumbago contracted by sleeping within the damp walls of a jerry-carved cave-for-a-hero. All that we can be certain about is that he evolved the big idea of attaching the rollers to the load or vehicle which was to be moved.

He invented the rudimentary wheel. The rollers were superseded by discs, and probably many generations lived and died before it occurred to anyone that wheels need not be solid. Thousands of years must have passed, and man must have made considerable progress before he discovered that a very strong and comparatively light

wheel might be made by connecting a rim to a hub with the radially placed members which we now call spokes.

Possibly he might have been contented with this type if some cranks had not experimented with terrifying machines called velocipedes. Then they discovered that wooden wheels were heavy. So long as vehicles had been drawn by horses, this disadvantage was of small account, except to the horses. A small amount of human energy applied to one end of a whip would increase the H.P.

Eventually someone saw the matter from the point of view of the horse, and when man began to propel vehicles by his own power, unassisted by slave drivers, as in ancient Egypt, he used his brains to save his muscles. Laziness is the mother of invention. So the wire wheel was gradually evolved and perfected. If you consider it carefully,



T H E P R O O F .

A convincing result of the impact test. A heavy weight is allowed to swing with terrific force against the rims of the wheels to be tested. In this case the impact which completely demolished the wooden wheel has scarcely even buckled the Rudge-Whitworth production.

you will realise that it is one of man's greatest triumphs.

Weight for weight, it is the strongest wheel that has been devised. It is an engineering miracle.

It was the invention of the wire wheel that made the pedal bicycle practical. Its amazing lightness and strength altered all our ideas of engineering, and the experience of years proves that the bicycle wheel is the most reliable part of a machine which is in its entirety a miracle of mechanical reliability. No other type of wheel is ever used for a machine which must be enormously strong in proportion to its weight.

The experience gained was applied when the invention of the motor car marked the next great advance in methods of transport. Experiments were made with all known types of wheels, but always it has been found that, when constructed scientifically, the one with spokes of wire is the strongest in proportion to its weight.

So to-day we fit these graceful, spider-web wheels to heavy cars, and find to our astonishment that if drivers (less expert than ourselves, of course) bungle into collisions, the undamaged parts of their mishandled vehicles are usually the wheels which look so dainty and fragile.

Since the invention and marvellous development of the motor car, engineers have conquered the air. For their aeroplanes they needed the strongest and lightest wheels available, because their machines had to run at high speed, not over roads, but on comparatively rough ground, before they could rise. When the aeroplanes landed they had again to run along the ground, and terrific strains were thrown upon the wheels.

The wire type was chosen for the work and has been used ever since. Even the huge bombing machines used during the war, which carried huge loads in addition to their great twin engines, were equipped with these wonderful wheels of wire. When bad landings were made, it often happened

THE ECONOMY OF THE WIRE WHEEL.

that the great machines were reduced to a mass of splintered wood and twisted metal, but often mechanics found among the wreckage the wire wheels intact—the only parts of the beautiful machines that withstood the terrific shock of impact with the earth.

In quite recent times we have seen a tendency on the part of car manufacturers to revert to the original, and most primitive type of wheel—the disc. The modern type of steel disc is certainly very far removed from the section of a tree used by our ancestors, but in principle it is still a solid wheel, and the impartial motorist may well wonder if the reversion to type is a gain or a loss.

We should collect many facts before we become unfaithful to our old friend the wire wheel. So thought the Daimler Company as long ago as 1911, when they carried out practical tests with the object of discovering the best type of wheel.

It should be noted that the Daimler Company were quite impartial. They were not testing their own products, but those of other firms. They had no interest in the matter beyond that of trying to discover which might be the best wheels to purchase and to fit to

cars upon which their reputation depended.

We are forced to admire the practical way in which they set to work. Their tests extended over a quarter of a million miles, a distance of nearly ten and a half times round our not entirely insignificant globe.

They used one hundred tyres in the test, fifty of which were fitted to detachable wire wheels made by the Rudge-Whitworth Company, and fifty to wheels that were not of wire. All the covers were of the same size, viz., 935 × 135.

The results of that test are of permanent interest to every private motorist. We grow tired of hearing opinions expressed, and of listening to discussions on the products of rival firms. Out of the babel of claims we want to pick hard facts collected by uninterested observers, and in the results of this remarkable test we can find them.

The fifty tyres that were fitted to Rudge-Whitworth wire wheels ran an average distance per tyre of 3,454 miles.

Those fitted to wheels of heavier and less resilient type yielded up the ghost after an average distance of 2,050 miles.

If you are good at sums, as you should be after your recent wrestling

with income tax returns, and other Governmental examination papers, it may interest you to make some calculations based on these figures. You will find that the tyres fitted to wire wheels lasted about 70 per cent. longer than those run to destruction on other wheels. If you do another little sum and obtain the same result as we do, you will realise that those figures represent a saving of over 40 per cent. on the cost of tyres.

If your tyres cost, say, £40 per set, a reduction of 40 per cent. of your tyre bill represents £16 in every £40.

In the course of our investigation into this subject, which is, perhaps, more often discussed than any other by motorists to-day, we desired to see the entire process of manufacturing the modern wire wheel. We have already described it as an engineering miracle. The Rudge-Whitworth Company of Coventry allowed us to pry into their works and discover some of their secrets, and we have to thank them for one of the most interesting days we have spent for many a long year.

A vast factory is not a place in which one can muse comfortably and piece together literary phrases. Demons emerge, apparently, from

Continued on page 19



On the left the literal "tuning" of a wheel to a standardised note is shown. On the right specimens of a batch of spoke-wire are being tested.

SPEED WITH SAFETY.



*The racing driver's success, and often his very life,
depend upon the ability of his wheels to withstand
terrific strains. That is why wire wheels are used on
all racing cars.*

THE 'GRAND PRIX WINNER.



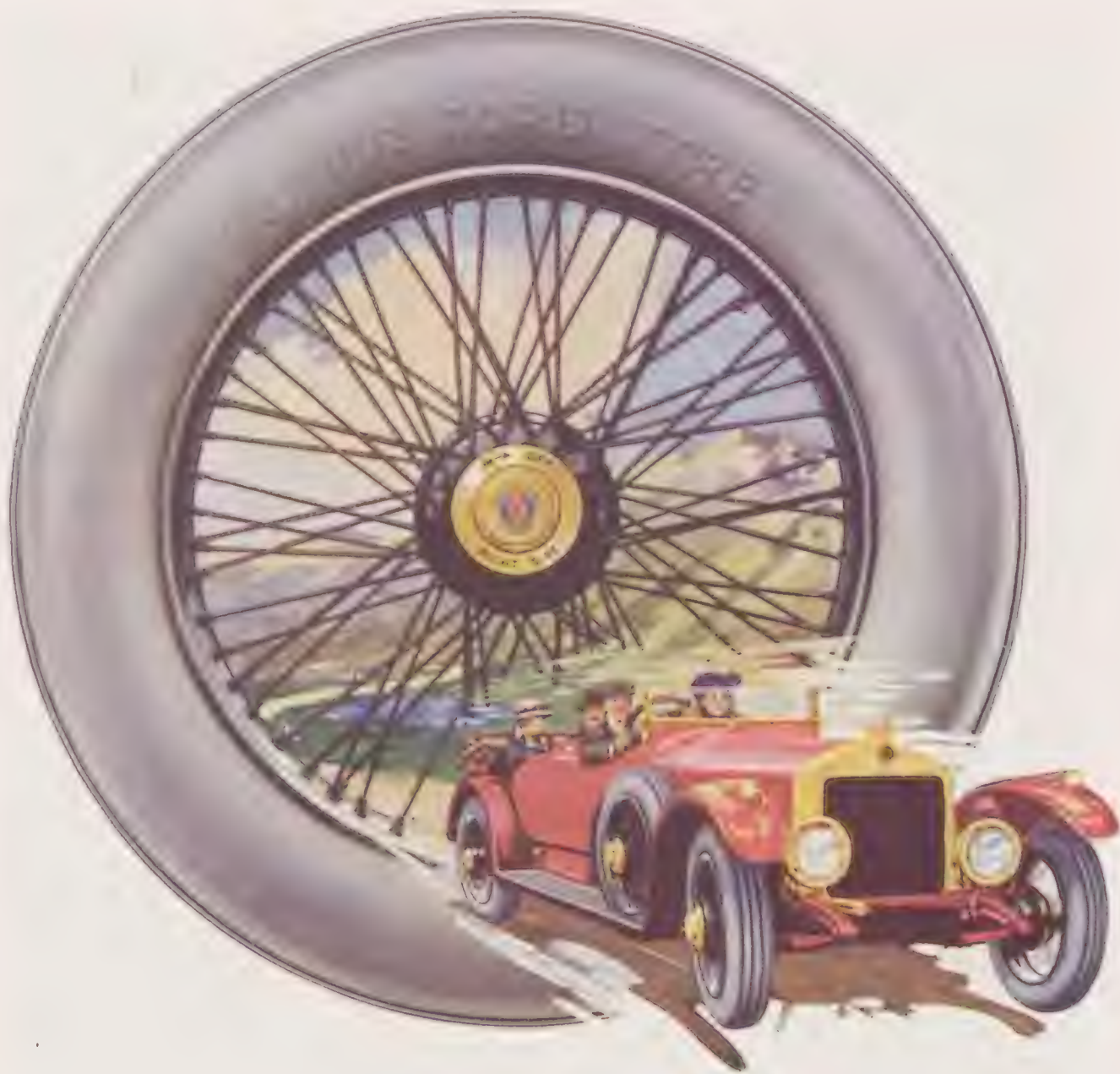
Rudge-Whitworth wire wheels were fitted to every car in the Grand Prix race, including the Duesenberg, pictured above, which Murphy drove to victory.

THE SPEED TEST.



Chassagne's Ballot, also on Rudge-Whitworth wire wheels, rounding Mulsanne Corner, one of the tremendous wheel-tests with which the race abounded.

REGARDING APPEARANCE.



*Apart from the greater efficiency, safety and economy
of wire wheels, they actually enhance the appearance of
the most luxurious of cars.*

IMPRESSIONS AT THE FACTORY.

(continued from page 18.)

little white-hot hells and run towards the intruder with bars of steel heated to terrifying incandescence. Vast hammers rise and fall thunderously, pounding steel that glows like the carbons in an arc lamp. Thousands of machines whirr, rumble, and palpitate with fierce energy. One knows that all this racket is subordinate to a few human wills, just as one is dimly aware that a few cool minds direct a battle. But it is not until the din has died away and one has had time to sort out many impressions, that one is able to understand.

When one has seen all the processes in this great hive, and has pondered over them, it is possible to realise why a scientifically constructed wire wheel is the strongest thing of its weight made by man.

Let us review the processes rapidly. First we see coils of steel wire. Each coil is tested in a machine capable of exerting a pull that will break the wire, though it is made of steel capable of bearing a strain of seventy tons to the square inch.

If wire from any coil can be broken by a strain lower than the standard, it is discarded. It should be noted that the standard is fixed at a point enormously higher than any strain the

wire will be expected to withstand during its lifetime in a wheel.

Then comes a bending test. The wire is bent to a right angle, straightened, and bent to a right angle again in the opposite direction. This is done six times, and the steel is then examined under a microscope. It must show not the minutest sign of injury after this severe test if it is to be considered worthy to take its place in a Rudge-Whitworth wheel.

The spoke wire, before being cut, passes through what is called a "swaging" machine, which is capable of inflicting upon it 12,000 blows per minute. These blows reduce the diameter of the wire, and at the same time make it capable of withstanding still greater strains. The breaking strain which was seventy tons before "swaging" is one hundred tons per square inch afterwards.

If you examine the spokes of a wire wheel, you will see that the central portions are slightly thinner than the ends. If you did not understand this principle of swaging, you might think that the thinner portions would be the weaker. You will realise now that the spokes are of equal strength throughout.

Knowing that the wire is capable

of bearing such enormous strains, you may think that the weakest point will be the threaded portion that carries the nut which secures it to the rim. You know by experience that threads are liable to strip, but you forget that the wire wheel engineers have had experience also—far more than you can claim. They have found out why threads strip. It is because they are usually cut.

Obviously, if you cut a spiral groove, you remove some metal. The Rudge-Whitworth engineers do not cut threads in this manner; the spiral is rolled into the metal by a machine capable of exerting such pressure that the thread is formed by indentation.

Practical proof of the value of this method is supplied by another machine which tests finished spokes. A few from every batch are deliberately broken under enormous strain, and it is obvious that if the design were weak at any point, the spokes would always break at that point. Two rarely break in the same place. The wire under these brutal breaking strains may be torn asunder at any part of its length, but the rolled thread never strips.

Not only are the spokes tested by direct and steady strains, but they also



On the left the familiar internal serrations are being cut, while on the right wheel-building is seen in progress.

THRILLING INCIDENTS.

undergo a vibratory test in a machine which gives them 350 fierce tugs per minute.

We might write for hours about the wonders of the testing laboratory. It was here that we were shown the principles of tuning. You will understand that the best tensions for the different spokes in a wheel are first worked out mathematically, and that theory is checked by practical tests.

You know that wire at different tensions gives different musical notes when twanged, so you will realise that the most convenient method of determining the tension of a wire is to make it supply the information by the pitch of the note it produces.

Standard wheels are, therefore, tuned to the desired pitch by experts who have trained musical ears. There are in the laboratory whistles or reeds, which produce different notes, and these are used for comparison in much the same way as a piano tuner uses a tuning fork.

After being tuned, each wheel is trued, and it is worth noting that the wire wheel is the only type that can be made absolutely true by simple adjustments.

So far we have given no thought to lateral strains, but as a practical motorist you know that the side strain on a wheel is enormous when you take a curve at speed. If a car should skid, and its progress be arrested suddenly by a kerb, you know that this lateral strain must be even greater.

Examine a Rudge-Whitworth wheel and you will see how provision has been made for such strains. You will see that the spokes are arranged in three series between the hub and the rim. Two of them take the driving strains and the road shocks; the third series is set at an angle to withstand lateral strains.

This triple spoking is the most important of the Rudge-Whitworth patents, and although it has been the subject of endless litigation the patent has been upheld in all parts of the world.

We were shown the apparatus by which the power of withstanding lateral strains is tested. It consists of a great weight which

swings like a pendulum. The weight can be drawn by a rope to any desired distance, then released and allowed to swing with terrific force against the rim of a wheel to be tested. Engineers test wheels of all types in this manner and chart results. The massacre of beautiful products seems sinful, but it is all in the cause of science. Wood and steel artillery wheels and steel discs undergo this impact test in addition to the Rudge-Whitworth wire wheels, and we were shown the charts on which the results are recorded. The wire wheel withstands side strains that distort other types, even though these may be of far heavier construction. Having glanced at a few of the processes, and noted some of the tests, we begin to understand why the wire wheel has such a remarkable record, and why it is used when the qualities of lightness, resilience, and the greatest possible strength are required.

Knowing something of the strains this type of wheel will bear, its history in the sporting world does not astonish us. We may recall an incident in the Isle of Man, when the West-Aster car, while practising for the Tourist Trophy

race, crashed into and destroyed the parapet of Sulby Bridge. The wire wheels were uninjured.

A few of us may remember that when Mr. Tryon was trying for records in 1908 one of his tyres blew off and became entangled in the car, which mounted the banking and fell to the ground, breaking telegraph posts and iron railings on its way. The wire wheel withstood the shocks and saved the life of the driver. Two of them were absolutely uninjured, and the others were not wrenched out of truth until the car finally crashed into the side of the road beneath the banking of the track.

The history of the wonderful wire wheel is full of such thrilling incidents as these, and it is not surprising, therefore, that as the result of long experience racing motorists have decided that this is the type to which they prefer to trust their lives. In the greatest international contest of the year, the Grand Prix at Le Mans, every car which started in the race was fitted with the Rudge-Whitworth triple-spoked detachable wire wheels, including the Duesenberg which Murphy steered to victory. No test could be more severe than that neck-risking race for the international blue riband on a course of terrifying curves and S bends.

Again, in the now historic 200 Miles Race on Brooklands Track, the three Talbot-Darracq cars, which caused the sensation of the year by winning first, second and third places in that fiercely fought-out contest, were all fitted with Rudge-Whitworth triple-spoked wheels, as were a great many others that were among the leaders, including the two Bugattis which finished fifth and sixth.

We have accounted for and proved the strength of this type of wheel. We have also seen how economical it proves with regard to the wear of tyres. The latter point in its favour is not only due to its lightness and resilience. There is another factor to be considered. It is that a wire wheel is an effective radiator of the heat from the tyres. No other type disperses the heat from the tyre so readily.



Not the least of their advantages is the comparative lightness of wire wheels and the ease and speed with which they can be changed.



12-20 H-P

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YESTERDAY, TO-DAY AND TO-MORROW.

Concerning Time, the Enemy; and Travel, the Disease.

IS there ever a gain without a corresponding loss? Fortunate is he whose gain is at the expense of someone else. Well, at the present time we have doubtless much to be thankful for; but we have lost our grip on to-day. Life's a rush. We have not even time to think of—and regret, surely to regret!—those "good old days" when to-morrow never came. It is always to-morrow nowadays, and the to-days are all yesterdays. To-day, as a matter of fact, scarcely bears thinking of for too many of us, and were it not for the necessity to plan into a long vista of to-morrows, life would be a poor thing. Hope springs eternal. . . . The most pessimistic of us must be a comparatively hopeful sort of fellow, since *hara kiri* is not a popular institution in this country.

We all get these doleful fits sometimes, so the present writer need not apologise. But is there nothing one can take for them? If I were not under the painful necessity of remaining in my chair until these three columns are full, I know what I should do—I should get the car out and go somewhere. Where? Anywhere; what does it matter, so long as one has a panorama of changing scenes—a life-size, natural colour, cinematograph-view of life as she really lived. Living in London—or Birmingham, Manchester, Edinburgh—one has seen it all before; there is not a place within reach of a day's run from one's home that is not familiar. Yes, that is true enough for many of us. Still, the scene is always changing if the road remains the same. And is the road ever the same—is it not totally different under summer skies, in the sere and yellow of autumn, in the fresh verdancy of spring—even when mantled with virgin snow?

Anyway, we must keep moving. Only business that cannot be denied—such as the present occasion for me—keeps us still. Even I am travelling as I write. I see again a sun-baked hollow surrounded by sandhills—the out-

skirts of the desert—where a promising road once petered out on a run in Egypt. Lord, but it was hot! And we had to push the car back through the sand on to the metal of the road, with the sun's rays penetrating with diabolical, almost deliberate, viciousness to our heads and spines. And the flies—!

The scene changes. I see wonderful groves of fruit trees, set with the meticulous tidiness of a child's toy, and bountifully laden, in Southern Bulgaria. Lizards scuttle for shelter, and on the face of a wall an enormous emerald-green locust—is he a locust? I don't know. Anyway, he's twenty times the size of the biggest grasshopper I've ever seen—suns himself, undismayed by human approach.

The insect life of the Balkans is wonderful, even though we did have to keep a wary eye for scorpions and centipedes. But we did not have to watch out for tarantulas or anything very deadly in the snake line, so what matter? The villages, I recall, were all repulsively picturesque or attractively squalid, according to one's point of view. . . .

And is it possible for anyone who has once seen it to forget the majesty of eternally snow-crowned Olympos, forty miles away across the blue Ægean Sea, dominating though so aloof? The old gods chose well their domicile.

War memories, these. But how I should like to revisit those places in different circumstances! Perhaps some day I will journey by rail and sea to Alexandria, or old Thessalonika, or Constantinople again, hire a car, and see whether the change from khaki to blue serge has altered my outlook.

The travel bug has bitten me badly, you see. Travel is the only antidote for ennui—even travel (what we usually style simply "motoring") through familiar scenes is better than nothing. But the world's a wonderful place. I have travelled in eighteen different countries—not a large toll, this; I am not boasting—and have laid up a stock of memories that is remarkably

consoling at times, and remarkably disturbing at others. For it is impossible to get the *wanderlust* out of the system. It will lie dormant for a while, perhaps for as long as a fortnight, and one will not even want to get hold of a steering wheel. But that *lust* was only recuperating; it returns to the attack in full force, so that one simply must at least get out on the road.

Perhaps *wanderlust* is partially accountable for the increase in car-stealing. *¿ Quien sabe?*

I want to visit Iceland. The name of its capital—Reykjavic—has a strange fascination for me. And New Zealand; and Mexico. Time is against it, though. We are all in such a hurry to transform to-morrow into yesterday that the particular "to-day" when I shall set off on one of those journeys may never dawn. How I envy those lucky people who, seeing a poster setting forth the charms of Madeira, shall we say, or Bermuda, or even, for that matter, Vanua Levu, can decide forthwith to visit any or all of these places at the most appropriate season.

Perhaps they also have their troubles—the trouble of selection from such an *embarras de richesse*. Oh, to be embarrassed with riches!—not money, but money's worth, time. Money is of no value except for what it renders possible. One has to pay for one's passage to the Fijis; so a certain number of dollars, drachmai, francs or pounds must be at hand. And one must eat. But the most greedy of us desires only enough money, whereas my demand for travel is insatiable.

I suppose the main difficulty, even for those who have the opportunity, is to know where to go. If I were able, I would go East, always East. To the north and south of that eastward-extending line I would branch off as occasion demanded, ever returning to the straight path. And so eventually I would return to London, get the car out and go for a run. Which is precisely what I am going to do now.

T. P. W.

THE BETTERMENT OF BETTING.

By Captain P. A. Barron.

Our Satirical Contributor hides some Grains of Truth among much Chaff.

HORSE racing is the noblest and most healthful of all sports. It keeps jockeys and stable lads in hard condition, provides nourishing food for bookmakers and sporting editors, and prevents the general public from spending money on harmful and enervating luxuries.

The effect of horse racing upon the physique and character of the British is inestimable. I have known portly, middle-aged gentlemen, who have for years been distressed by the gout and corrugated liver which harass the idle rich. They have become interested in horse racing, and in a very short time have grown slim. They have surrendered all luxuries, and have sold their homes, furniture and overcoats in order that they might enjoy the invigorating open-air life on the pavements of our great cities.

Horse racing has a toughening effect upon the nation. Followers of this noble sport soon reached that hard condition technically described as "stoney." They acquire frugal habits, and learn to deny themselves and their families those softening luxuries which are the curse of modern civilisation.

Enlightened Governments, therefore, encourage horse racing. Illustrious members of the House of Lords support stables by the expenditure of vast sums. Prime Ministers welcome great race days on which the attention of the public is distracted from the course of events to events on the course. On such days even great newspapers have been known to mention horses on the chief news pages usually devoted to the latest net sales certificates.

These facts prove that the Turf is of interest to a great many people, some of whom regard it as a superior sport to Put and Take, or the more closely related Petits Chevaux.

Let us therefore study some of the rules of this great game for the

benefit of the young, upon whom the future prosperity of the great book-making industry depends.

At the outset the youthful sportsman needs no special gifts or accomplishments. A moderate fortune is essential in the beginning, and the novice should have sufficient knowledge of arithmetic to enable him to calculate his losses and understand the intricacies of a credit account.

The chief advantage of the sport is that it is played during office hours, which would otherwise be so boring that they might prove injurious to health.

Most of the horse racing in this country is done in business offices, as all considerate employers have telephones for the use of their staffs, and also employ boy messengers who may be sent out to procure special editions of the evening papers. The young sportsman should, therefore, accept a position in some good firm after having satisfied himself that the messengers are smart and capable, and that telephone calls are not registered.

Formerly many keen racing men subscribed to clubs, but the custom is dying out, as so many of these institutions now charge members for the use of the 'phone. A governmental or commercial office is a far better place from which to conduct operations. In such quiet resorts sportsmen have the necessary hours of leisure in which they can discuss the form of horses and the merits of jockeys.

The day's sport begins as the members of the staff assemble between the hours of nine and eleven. Their times of arrival should be graded in accordance with their salaries. Those who are paid a paltry £250 per annum are admitted early, but it is not considered good form for the more highly paid members who receive £2,000 or over to appear much before noon. Their time is so expensive that they should endeavour to save the money as much of it as possible. They will lose nothing by being considerate because the early hours of the day are devoted by the juniors to the discussion of tips given by the racing experts in the daily press. It should be arranged that each member of the staff buys a different paper in order that the tips given by the press experts may be compared. They will find that every horse in a race is a "dead cert.," and this will give them confidence.

This routine office work of comparing tips and reading the racing



ANENT THE CREDIT SYSTEM.

articles should always be done by the juniors, and they should also consider it their duty to send out the messengers for the first editions of the evening papers in order that these may be ready for reference when the heads of departments arrive.

In return for these little courtesies, the heads will see that no business deals, directors' meetings, or other distractions shall coincide with important races.

The methods of selecting horses vary in different firms. Some have betting systems which introduce an element of certainty into their losses. Many of these systems are so cleverly devised that by applying them it is impossible for a person who has an income of £500 per annum to lose more or less than £750 in any given year. It is probable that the Government will shortly make the use of such systems compulsory.

Legislation has already done much to encourage betting. At one time it was possible for the members of business firms to leave their offices at any time during legal hours and make cash bets with commission agents in their beautifully appointed saloons. The income tax collectors eventually discovered that this method had disadvantages. They argued that commission agents should be compelled to keep businesslike accounts in order that their books might be audited and the super tax paid regularly.

They introduced, therefore, the credit system, which works admirably. Although it appears complicated to the uninitiated, it is in reality simple. The betting man now pays his salary weekly or monthly to an accredited commission agent instead of into a bank. He thus knows exactly how much he will lose during each accounting period.

The betting man—backer, punter or payee—does not draw upon the savings which he

has deposited with the commission agent, but has the right to nominate the horses upon which his money shall be expended. The Government still regards this privilege as a concession which may be withdrawn, as it complicates the book-keeping of the commission agent and adds to the work of the Income Tax Commissioners.

I have given much study to these problems of high finance, but I will ask the reader to excuse me for a few moments as I have to leave the office to get the result of the three-thirty.

Thank you! I had backed it both ways, and it came in tenth, so I have doubled my stakes on the four-fifteen.

We can now resume our studies. The slight pause has turned my thoughts again to the wise legislation which prohibits cash betting. The end of the week is approaching, and were it not for the beneficent credit system I might feel disinclined to make further bets until a more convenient time.

Vive le parlement!

Many people wonder why ready money betting is discouraged by legislation. The reason is, of course, that our greatest national industry is

restricted if conducted on a cash basis. It is far easier to be reckless when one has a credit account.

Excuse me again, as I hear the familiar cry of "—tra spechul."

My horse fell and broke one of his legs. Fortunately, I only backed him one way or he would probably have broken two.

We will resume.

My colleagues have been discussing the payment of betting debts by cheque. They appear to be confused by recent decisions of the courts. Within the last half-hour they have told me:—

(a) That if I receive a cheque from a commission agent this is *lèse majesté*, and punishable by death. Fortunately, I have never received a cheque from a bookmaker, but I see now that things might have been worse.

(b) That if I have ever paid bets by cheque I can be compelled to pay again in paper currency, and may be forced by right of *habeas corpus* to undergo trial for *Barratry*.

(c) That if I have ever written a cheque in any place which is not a place within the meaning of the Act I am *sub judice, mors omnibus communis*,

and *tableau vivant*, liable to death by torture, forcible feeding and annulment of franchise.

These legal powers, which have been in abeyance for many years and are now being acted upon, are aimed at the banking system. It is clear to any thinking man that no Englishman will in future run the risk of carrying a cheque book on his person. The only safe course is for each man to pay over his entire income, in cash, to his commission agent.

On the whole, I think the Government has done more for commission agents than for any other financiers, and, doubtless, the politicians will get their deserts.



S O M E M O T O R O W N E R S —

Lady Belper and her three children. Before her marriage, Lady Belper, who is the second daughter of Lord Aberdare, was a popular member of society as the Hon. Eva Bruce. Both photographs—on this and the next page—are by Miss Compton Collier.



— O F S O C I A L P R O M I N E N C E .

Lady Fitzherbert, wife of Sir Hugo Meynell Fitzherbert, who is a daughter of the late Thomas Edward Erskine and a descendant of the first Lord Erskine. Photograph taken at Tissington Hall, Derby.



IN WORDSWORTH'S COUNTRY.

A hilly corner of Britain with many Associations.

FOR long an effort has been made, and is still being made with increasing effect, to preserve that hilly corner of our land which has been made sacred by the memory of William Wordsworth.

For its own sake that lovely district among the Cumberland mountains is worthy of protection from the despoiling hand of commercialism; for the sake of the great Lake Poet, who has left his native land under a lasting obligation, and whose presence still seems to haunt these ways of infinite beauty, it is worthy of enduring preservation.

Within a circle whose diameter stretches from Cockermouth, where he was born, to Rydal Mount, where he passed away, practically his whole life was spent; and all that region was beloved by him. From its natural features he drew the inspiration of his undying song.

His poems breathe the atmosphere of the great hills, the music of the wind among the trees, the ripple of the streams down the hill-sides, the murmur of the storm among the crags; and the voices of the toilers in the quiet dales find their echo in his matchless poetry.

To sit on that tree-clad mound known as "Wordsworth's Seat," overlooking the waters of Rydal, when the mirror surface reflects the vision of the hills, and a veil of haze adds mysterious suggestiveness to the surrounding scene, is to feel a little of that inspiration that thrilled his being to such heights of sublime expression.

On the ridges of Nab Scar, rising tier by tier toward the wilder heights of Rydal Fell, Wordsworth wandered day after day, with Rydal Water at his feet and, yonder, the brown slopes of Loughrigg. This was his study; not within walls and closed doors, but under the open sky and amid scenes that encouraged fine thinking and gave keenness to the mind and wealth to the imagination.

In one of his early poems, referring to himself, he says,



*The luxuriant Langdale Valley
set amid scarred hillsides.*

"A poet, one who loves the brooks
Far better than the sages' books."

The humble abode of his days of comparative poverty stands near the shore of Grasmere; and visitors to "Dove Cottage" are reminded that the genius that has thrilled the world has not always brought even the modest comforts of life to the man who has given his best for his fellow-men; but Wordsworth was not destined to spend his days amid a penury that has often slain the soul of greatness and stifled the voice that might have shaken the world; and "Rydal Mount," not far away from the lowly cottage by the sister lake, is regarded by the traveller with a sense of satisfaction, in that the great poet found here that freedom from the petty anxieties of life and the crushing narrowness which have been the lot of many a poet, to the country's loss and the country's shame.

It is an exhilarating climb over Loughrigg Fell to the beautiful Langdale Valley, and to Dungeon Ghyll at the valley's end, which has been im-

mortalised by the poet in his "Idle Shepherd Boys":

"It is a spot which you may see
If ever you to Langdale go;
Into a chasm a mighty block
Hath fallen, and made a bridge of
rock;

The gulf is deep below."

One must read Wordsworth again and again, nay, almost learn his poems and get into their spirit, if one would appreciate to the full the charm and glory of this Lakeland district.

To be familiar with "An Evening Walk" and "The Excursion" is to see new wonders in the common things of wood and lane, to discover an amazing loveliness on hill and moor; while the greater things of mountain crag and towering height, of spreading lake and far-flung sky, are touched with a new significance, inwrought with passion and majesty, after the poet has woven about them his revealing imagination.

He believed that men could have communion with nature, that the human soul was akin to the soul of the world. His was a real friendship with the mountains and the lakes, and this strange fellowship was the secret of his understanding. They opened their inmost heart to him and he caught the spirit of their power and real the meaning of their ways.

Spake he not of himself when he wrote of

"the first virgin passion of a soul
Communing with the glorious uni-
verse"?

Or, again, in those memorable lines written above Tintern Abbey:

"I have learned
To look on nature, not as in the
hour
Of thoughtless youth, but hearing
oftentimes
The still, sad music of humanity,
Not harsh, nor grating, though of
ample power
To chasten and subdue."

The schooldays of William Wordsworth were spent at Hawkeshead; and the attractiveness of the place

JOYOUS SYMPATHY.

lies almost entirely in this association. It is an unpretentious village, and the country near at hand lacks the grandeur of the greater hills beyond, while the neighbouring lake of Esthwaite is one of the least in area, as well as in natural beauty, of all the lakes of the district.

Going thence to Cambridge in his eighteenth year, he found but little pleasure and gained no distinction, and later, perhaps with a backward glance at these days, wrote :

"One impulse from the vernal wood
May teach you more of man ;
Of moral evil and of good,
Than all the sages can."

He spent some time in France after leaving college, and finally settled in the Lake District, where his mind and soul found liberty for thought and expression, and where he could live his life in that joyous sympathy with the world he loved

"in the woods

A lone enthusiast, and among the fields."

He turned his back on the great tumultuous world that he might be himself and fulfil the task for which nature had so eminently fitted him :

"Strongest minds

Are often those of whom the noisy world

Hears least."

His tomb will be found in the graveyard of Grasmere. A plain stone marks his resting-place ; and no effort has been made to add distinction to his grave.

Were it not well ? What more fitting place than this for one who loved the quiet and silent things of the world.

The solemn grandeur of the great abbey, the magnificence of the cathedral, have no pre-eminence over the vast temple of the eternal hills. No

work of man can vie in sacred dignity with the storm-scarred rocks and mountain peaks that keep their silent vigils above his grave. No requiem pealed from finest organ through pillared aisles and dim cloisters can touch a deeper chord in human hearts or sound more solemnly impressive than the orchestra of nature, when the moaning winds sing their low song among the tree-clad hills above the tombs of Grasmere ; and, standing with bared head within sound of the rippling stream, one hears the words of him who, "being dead, yet speaketh" :

"Though inland far we be,

Our souls have sight of that immortal sea

Which brought us hither ;

Can in a moment travel thither—

And see the children sport upon the shore,

And hear the mighty waters rolling evermore." ALLAN PHILLIP.



Above : Cockermouth, the birthplace of Wordsworth. On the left is Grasmere Church, where is the poet's grave, and on the right Dove Cottage, his early home.



SKIDS AND THEIR TREATMENT.

Some cars are more liable to skid than others; some drivers are more liable to cause skids than others. A few words on the avoidance of the calamity in the first place, and on the best means of neutralising its effects in the second, may not be amiss.

FEW things are more disconcerting than skidding. Or call it side-slip, if you will; the moral effect remains unchanged. The meaning of the terms requires little explanation; each of our hundreds of thousands of drivers and owners of motor-cars, and other sorts of automobile vehicles, has upon occasion felt an otherwise tame and tractable automobile display an independence of control that he finds unwelcome.

Like so many other things, skidding varies in quality. The term includes the slight sideways movement of the rear wheels that is hardly noticeable. Again, it may be so pronounced as to slew the vehicle completely round.

One of the main dangers of skidding arises out of its unexpectedness. Unless the driver is very experienced a sideslip disconcerts; it effectually reduces the self-esteem of the man at the wheel and shakes his confidence. He had thought he knew the car intimately, that the wheel he grasps in his gloved hands so assuredly will never fail to place the car where his mental impulse wills. Then he learns otherwise.

"It's the first step that costs" say the French, with more than a little psychological insight. It is equally the first slip that proves so expensive to the motorist. And yet he, fairly experienced, and not given to emulating the ass who hastens to outstrip an angel's footsteps, is held responsible for a skid-caused smash.

We are doubtless agreed that motoring introduces a new set of problems, that these problems need understanding, that their seriousness merits something like care, cognisance, and capability. Thus armed, skids, even when masquerading as sideslips, need cause no insomnia, a small matter, nor a hollow pocket, which some rate-payers, oddly enough, imagine to be a catastrophe. On the contrary, gritting expensive teeth, we take the road, confident that it shall not take us where we wouldn't.

Aware, now, that the car has

individuality, we act in consonance. Few of the readers of *THE MOTOR-OWNER* are ignorant that a car moves because its driving wheels grip the ground. If the wheels fail to do so, they spin idly. They can only be thus at fault when the road surface is slippery—greasy if you like. On the level, idle spinning, beyond thwarting our modern desire to get somewhere else, and somewhere else again after that, does hatch pernicious seeds. But you never find that sort of road. Highway engineers are odd folk. They like roads with a camber, that slope downwards to the sides. They say that camber prevents water working into the foundations, and thus causing untimely repair. It would almost seem as if they were studying expense!

This, again, is what Livy would term a digression, and is only of use to show you the wisdom of accommodating yourself to the world as man mars it. So to the steering wheel once more.

The skid we are considering happens. Unexpectedly, or uninvited at any rate, the car has slewed round. As a rule, it is the back wheels that have got out of line, sliding downhill towards the gutter. I have known front wheels similarly affected. But they are thus indisposed but infrequently, since a mere rolling motion seldom loses its hold of the road.

The back of the car now being beyond the driver's control it is carried sideways by its momentum through an ever-increasing angle. If the car has been travelling slowly the skid will be slight—a foot or so merely. On the other hand, the car may turn through a right angle, or even reverse itself completely.

In skidding itself there is not necessarily danger. Beyond your unpalatable thrill the incident passes harmlessly. The trouble is that there are so many useless people about. They will crowd on to the thoroughfares, and as close as the cinema-patronising couples. So it is not your skid that

matters—the danger is due to those other folk who interfere with your elegant rotatory evolution.

If you have not driven too close to other vehicles you can check a skid before it causes damage. A dexterous twist of the steering wheel is enough—only it must be *in the same direction as the sideslip*. For thus you bring the front part of the car in the line of motion of the rear, into the position in which you normally drive.

But the movement must be *slow* and even then it requires sufficient room for its execution, which is just why you should never, on greasy roads anyhow, "shave" other traffic. A single foot, in the right place, is often enough.

There are also contributory causes. It is natural for the novice to jam on the brakes when his car skids. It is also nasty—it turns a cold into a fever. Treat the brakes, under these conditions, as you would a coffin.

If you can, keep to the centre of the road.

Slow down *before* you strike a danger zone. You will not then have the same need to pull up quickly, and if you do have a collision you will learn the difference that exists between the impact of a pound and that of a ton.

Study other people. The other fellow may also be skidding. Or she may be a lady who has not yet buried her fingers, or who trades upon her sex. And there are novices about a-plenty—you'll find them safer in their drawing rooms.

Use a non-skid tyre on one of your driving wheels; a pair of smooth treads skate admirably on slippery roads. Employ the same treatment with the front wheels. If they sideslip you must sit tight and pray the damage won't run into four figures.

See that your clutch is lady-like, and take up that backlash in the transmission and steering gear.

Keep your tyres pumped up.
And *don't* lose your head.
And *do* read this page again.

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A SMALL "SURPRISE PACKET."

An Appreciation of the Hillman Two-Seater and its Average Road Speed.

WE have always heard Hillman cars spoken of as "hot stuff," or words to that effect, and we were very pleasantly surprised at the capabilities of a Speed Model which we tried and reported upon in THE MOTOR-OWNER last year. But the climax was reached a while ago, when we heard an enthusiastic owner extolling the merits of his standard touring Hillman; he was prepared to back the car against anything on four wheels for average speed on the road. We admired his enthusiasm; but then everyone's car is the best there is—to its owner.

Anyway, we dropped a line to the Hillman Company, were put in touch with Messrs. Coppen and Allen, of Great Portland Street—the firm's agents in a large southern territory—and in due course sallied forth on a Hillman two-seater. We have only one regret—that no speed indicator was fitted, for at first we were apt to mistrust our judgment that the car was normally a fast one. Speed, or rather impressions of speed, are deceptive, depending to a great extent upon the silence or otherwise of the car, its height from the ground and the width of the road. The Hillman car was slightly on the low side as compared with the vehicle upon which we do most of our driving, and we thought that the speed which seemed to us to be round about 25 might actually be no more than 18. The owner whom

we have mentioned was boasting of his average speed, however; so we decided to drive at the pace, whatever that might be, which best suited us and the car, and let known time and distance decide the point. We left London at 11.30 a.m. to the minute, and ran by a round-about route for the south coast, paying a call midway which occupied at least half an hour, and reached our destination at 2.30 p.m. That seemed pretty good, but having made a considerable detour, necessitating a certain amount of cross-country running, we were not sure of our facts. We came home, therefore, by the direct main road, the length of which, from many different mileage recorders, we knew to a yard—and the car was locked away in its garage in two hours and five minutes from the start, despite the fact that the last stretch of twenty miles was accomplished in the

dark, mainly over roads where head-lamps could not be used.

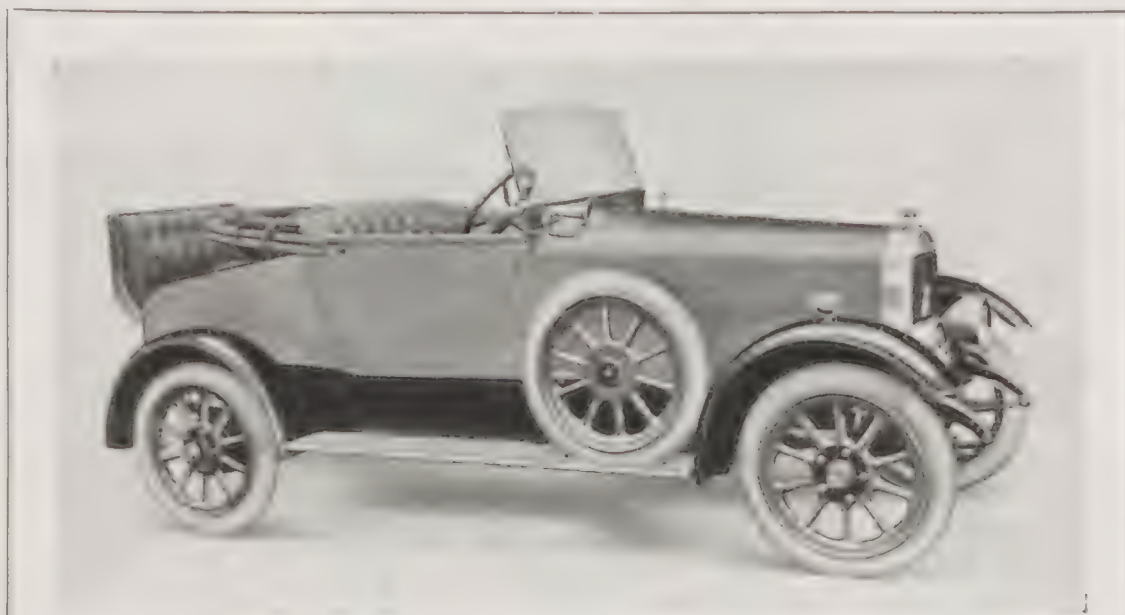
When we say that never before, on cars large or small, have we covered this particular road, even when making an effort to do so, in less than two and a quarter hours, it will be seen that the Hillman really did prove a "surprise packet." We made no attempt to break records, drove (as we hope we always do!) considerably, and made two brief halts *en route*, simply letting the car take its most comfortable pace throughout. Except on the occasion of the stops mentioned, the car went from door to door without a change of gear.

We are told that the 1922 Hillman touring engine embodies the lessons learnt in the evolution of the speed model—and we can well believe it. Personally, we prefer the touring car, for although its extreme capabilities may fall slightly short of those of the

more sporting vehicle, it requires less real driving, especially in regard to hill climbing, although skill is called for to an extent sufficient to make the handling of the car really worth while.

In traffic the control is simplicity itself, and there is seldom need to change speed.

The sum of our impressions is simply complete understanding of and sympathy for that enthusiastic owner who was the indirect cause of our trial run. The Hillman is undoubtedly a car to breed enthusiasm in the highest degree.



The Hillman two-seater is a compact little car, but its performance is greatly in advance of anything that its appearance suggests. It is a car that is worth while driving.

BRIDGNORTH THE PICTURESQUE.

A Town which history has served with lavish hand.

IF the traveller on the King's Highway should chance to gain his earliest impression of Bridgnorth from the roadway approaching this ancient town from the south, he is to be excused if he stand long gazing upon it with admiration and surprise; for few towns in this country occupy a position so unique and so impressive as this.

Perched on the sheer edge of a broken precipice whose base is washed by the flowing of the Severn, it commands a vast prospect of the verdant country and breathes out defiance from its proud elevation against the armies of the plain.

Peaceful to-day, it stands amid tree-clad hills and grassy meadow land, always rich and luxuriant with the damp humours of the river, sheltered too by the tumultuous masses of the hills that crowd together to the north.

Its name, once Brugge, because the river was bridged here in the days when names were first decreed, is suggestive of the city of canals in Flanders; but its aspect is as far removed from that level terrain as imagination could devise.

History, dealing out events with no sparing hand, has written lasting records in wood and stone among the buildings of Bridgnorth; and most central of all, the leaning tower of the Castle tells of the destruction wrought by Cromwell's gunpowder in an effort to destroy the old fortress. But long before that this massive castle had been a centre of dispute. Robert de Belesme built it in 1101, and Henry I captured it from the rebel knight; Henry II laid siege to it some fifty years later. It served the purpose of a base in the long wars against the refractory Welsh, and was just far enough from the border line to be safe from the sudden attacks made by those hardy hillmen against the fortresses nearer their own country.

Edward II was taken from this Castle to his death at Berkeley Castle in 1327.

The old church, long since replaced by a modern building, is said to have been founded by Adelisa, wife of the great Roger de Montgomery, in recognition of her gratitude for a safe crossing of the Channel during a gale of unwonted fury. It was, however, founded in the level meadows near the river, and Robert de Belesme transferred it to its lofty eminence on the Bridgnorth cliffs when he established his castle there and laid the foundations of the town.

The whole town is redolent of antiquity. The Market Hall, standing in the centre of the spacious High Street, dates, it is true, from no more distant period than the days of the Stuarts; but it supplanted a much older hall which was burned to the ground in the Civil War.

The wealth of half-timbered houses on either side of the road is amazing; and away back in narrow thorough-

fares many choice specimens of this old world style may be found.

One of the few ancient houses which escaped the ravages of fire in 1646 was Bishop Percy's House on the Cart Way not far from the bridge. It bears the inscription "Except the Lord build the Owse, The Labourers Thereof Evail Not. 1580." This is a beautiful example of the most ornate style of black and white architecture.

The lower town is reached by a steeply winding road, or a still steeper flight of steps cut in the red sandstone.

It is this red sandstone that gives so warm a tone to the country round, for in all directions the rocks burst through the green foliage where the river in its age-long flowing has won for itself a passage in the soft soil. Caves are many in these walls of sandstone, and the cliffs of varying height crowned with woods give unique beauty to the district.

The finest view of Bridgnorth is obtained from the Quatford road beyond the river, from whence the houses seem to pile themselves up from the level of the bridge right to the crowning summit whereon the old keep stands.

Bridgnorth lies in the heart of a wonderfully verdant country, and from the long hills that stretch away to north and west there are inimitable views of the glorious Shropshire landscape with the loftier heights of Wales along the horizon. To follow the windings of the Severn upstream takes one through choice scenery where the trees arch themselves across the water, casting shadows of mystery about the still pools while to trace its southern windings brings one through verdant valleys toward the pasture lands and orchards of Worcestershire.

The spirit of peace and the hand of nature's generosity bless the green lands that spread for miles under the guardian care of this city of the hills.



A steeply winding road and a still steeper flight of two hundred steps connect the upper and lower towns.

WHEN WE ABSORB INTO CIVIL LIFE THE MEN OF OUR SCRAPPED SHIPS.

THE NAVY ASHORE.



When Mrs. Van Pynn engaged James Turtle as second-man, she did not realise that she was getting an artist of the first water and champion tattooist of the Mediterranean fleet, and when he found the butler napping, shortly before Mrs. Van Pynn's first big dinner of the season, he simply could not repress the artist's creative impulse.

Old Bill Bailey, of the gay crew of H.M.S. Armistice, simply could not resist dancing the hornpipe. And so when Mrs. Priskey gave a musical tea to the French Ambassador and his wife, Bill wrecked her social ship right there and then by starting his dance just as the guests of honour arrived. Mrs. Priskey simply couldn't explain.



You would never suspect that Fields, the correct butler at Mrs. Aspinwell's, is none other than "Cut-plug Joe," one-time bosun of H.M.T.B.D. X. II. Thus, when he burst into the card-room with, "Ahoy the missus, the captain's compliments, and the car brought up in irons with her bow through the sun parlor. Captain club hauled under quarterdeck and requests immediate salvage operations," it is no wonder that Mrs. Aspinwell spoke to him a little sharply.

Mrs. Widger had never had such a good worker as Will Anchor, former gunner's mate in the Atlantic squadron, and because she was rather deaf she was unmindful of the tuneful chanteys with which the old salt enlivened his work while she discussed the horrors of alcohol with her old friend Bishop Bromwell. Thus:

Here's to good old whisky,
Drink it down—drink it down.
Here's to good old whisky,
That makes you nice and frisky;
Here's to good old whisky,
Drink it down.



A STRIKING PERSONALITY.

Some Thoughts on Inventions in general and an Inventive Genius in particular.

HAVE you ever noticed that when any fresh invention has caught the public fancy and has earned for its sponsor at least the promise of success there are crowds and crowds of claimants to an earlier patent or to the accomplishment of the same thing years and years ago? It is not merely a common, it is an invariable occurrence. Sometimes these claimants have a certain amount of justice on their side; at other times they have merely had an idea which they have never been sufficiently venturesome or bold to develop. Sometimes, again, the precursor of a successful invention has been lacking in just those apparently trifling details which are of vital importance to success. One cannot forget men like Watt and Stephenson, who really invented little but perfected the work of numerous predecessors; Marconi, who commercialised the scientific discoveries of Sir Oliver Lodge and Hertz; and Bell, who, although the patentee of the telephone, was by no means its inventor.

The bearing of this little dissertation on the subject immediately in hand is this. There is a certain gentleman, by name Lionel Rapson, who is universally known in the motoring world and is an inventor of no ordinary ability, but to the best of my knowledge practically every one of Mr. Rapson's inventions has been forestalled in some way or another. The pneumatic tyre was not three years old before improvements were suggested to render it unpuncturable. The engine-operated jack has been presented in many different forms; even the special equipment on the axles which are responsible in no small measure for the wonderfully rapid operation of the new Rapson jack (not engine-operated) have been forestalled by the provision of special jack abutments by several car makers; and it is suggested without secrecy in many quarters that previous inventors or manufacturers had discovered the secret of the blessing of dipping head-

lamps. All this may make it appear that I am on my way to pay a very round-about compliment to a man who has attained to a unique position in the motor trade in a way that is surely equally unique. Be that as it may, it is a fact that it has remained for Mr. Lionel Rapson not merely to invent but to produce successfully and commercially the various striking accessories, gadgets and items of equipment that bear his name.

Rapson first saw the light of day thirty-eight years ago, and the first money that he earned was as a boy on a troopship conveying Boer prisoners to St. Helena after the Boer war. He came home to England with his pockets bulging with what was to him unlimited wealth and bought a bicycle. The next morning he saw an advertisement in the paper of a vacancy for a boy in a motor works in Marylebone, and took his own means of securing the job.

After serving his time in the Marylebone garage, Rapson joined the Guards, where, incidentally, he was a boxing enthusiast. Purchasing his discharge, he became engineer in charge of the royal cars at Kensington Palace, a job which lasted for three years and saw him to the end of 1911. In 1912 he was in Spain demonstrating Rolls-Royce cars with the Marquis of Salamanca, but on August 4th, 1914, if not actually in khaki, he was in the A.S.C. M.T., with the distinction of being the seventh volunteer to be accepted in London. His war service, after a spell in France, where he earned considerable renown by the consistent running of the cars under his charge, terminated in German South West.

A period of home service, when he was in charge of a military hospital, gave him an opportunity for the development of his latent inventive genius, and one of my most vivid impressions dates from 1917, when I saw in the streets of Coventry a pair of Rolls-Royce cars with what were to me mysterious adjuncts under their front springs. A few minutes afterwards I formed a humble member of a party

of motoring journalists who investigated, with feelings approaching to awe and wonder, the Rapson ball-bearing thread and its practical application in the engine-operated jack.

From that time to the present Rapson's career has been well before the public eye. The sensation that was caused by the introduction of his unpuncturable tyre will be readily recalled, as also will the fact that the tyre was somewhat disappointing in its performance owing, it transpired, to manufacturing defects. It was as the result of the impossibility of getting his tyre made to his own satisfaction, and of his extremely exacting specification, that caused Mr. Rapson to launch on the latest of his big schemes—the establishment of a tyre factory where the tyres should be made under his own personal supervision. Since their introduction the tyres have undergone certain modifications in design and very drastic modification in constructional detail. To tell the whole truth and nothing but the truth, I have a shrewd suspicion that the success of the Rapson tyre is due to the remarkably high standard of workmanship that is embodied in them, as much as to anything else. They are really the very best made tyres that I have seen, and in view of the fact that their manufacture is in the hands of men who not merely know their job, but are dissatisfied with their present achievement and are continually working to improve upon the tyres, it is difficult to see how they are ever likely to be excelled.

Of their merits and of the proof of those merits it is hardly necessary to speak. When the officer in charge of armoured cars in the desert vouchsafes that the life of an ordinary pneumatic tyre is five or six miles, while Rapson's run for several hundred miles, there is little more to be said; but the motor-owner who likes official endorsement of the quality of the article that he uses has as many R.A.C. certificates in connection with Rapson products as he can wish.

W. H. J.

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DEPARTED GLORIES.

O U R E N G L I S H V I L L A G E S .

By Felix Rindle.

With Particular Reference to Bourton-on-the-Hill, in Gloucestershire.

THE stately homes of England have been sung in verse that, if not matchless, if not high poetry, at any rate is verse, as instance this :

The stately homes of England—
How beautiful they stand,
Amid their tall ancestral trees,
O'er all the pleasant land !

A number of them have also been drawn in pencil, charcoal and ink, and painted in both water-colour and oil, as some of our famous views.

But while one may have no quarrel—far from it in a general way—with the Eatons, the Chatsworths, the Bowwoods, the Longleats and the Warwicks, nor, either, with the old foursquare black-and-white houses of Lancashire, Cheshire and Shropshire, one still may venture to assert, without fear of contradiction, without even the formality of a by-your-leave, that not alone by those things and the others of their sorts is the *summum bonum* of the magic of England achieved.

Nature has been kind to England, and through her to us her big family, as the great views attest ; and the heritage that we derive from proud baron and as proud abbot is an uncommonly picturesque heritage. Yet when tribute has been paid to Nature, the beneficent mother of us all, and, as well, to the conquering Norman, that great race of builders for defence and for the glorification of the Church, it still behoves us to be grateful to the men of our own race. From them also we inherit, and one of the things or institutions that our English forebears have bequeathed to us is—who will deny it ?—none the less acceptable because it was conceived and has been developed by Tom, Dick and Harry, not their aristocratic overlords. The English village is as English as the cakes that Alfred let burn, as English as Shakespeare, and as English even as roast beef and pale ale, not to say John Bull himself. It is older, in England herself, than Duke William's

marauders, and at its best, as often you may see it, is as beautiful as anything that was built in England under foreign kings, and ever so much more lovable.

Our English villages, some deepest in valleys and others bedecking a plain, some set above hill, others at the foot, and still others as cheerfully mounting from foot to crown, are such very joyous possessions that for the life of me I am unable to make out why they have remained unsung. Drawn and painted they have been, of course, but sung—I myself am no great reader, so that I may be in error in saying that if our villages have been sung at all they have been sung only by singers in a minor key. But supposing I am right, then, one may contend, have the poets, the major poets, been remiss. One might prove the argument, point by point, but why labour what ought to be, if 't isn't, the obvious ? A mere few points from a many will serve, as thus :—Unto beauty and to loveliness is to be added, in the case of the village, the reverence due to age. Consider Dorchester, a village of Oxfordshire. It is arguable whether Dorchester was called *Dorocina* by the Romans, but that does not discount the likelihood that the place was rebuilt on Roman foundations by, it may have been, the British—the Johnnies who wore woad, don't you know—or, it may have been, the West Saxons—Alfred's own particular crowd, you may remember. Such foundations or no, Dorchester, to-day a village with a church that might serve a town, was in Saxon times a cathedral city, as full blown as such as, however less smoky and rainy than, Manchester. We rate Winchester old, but, bless us ! it was not until, in 707, the Bishop of Wessex transferred his stool from Dorchester, where it had stood since 634, to Winchester, that the latter place took cathedral rank.

The case of Dorchester, you may incline to say, is an outside case, but before you commit yourself try Bangor

Iscoed, alias Bangor-on-Dee, a place in that parcel of Flintshire that, divided from the bulk of the county by Denbighshire and the River Dee, and flanked on its three other sides by Cheshire and Shropshire, is officially known as Flintshire Detached. Now Bangor, only a village, might be unknown outside Flintshire Detached were it not that the fame of its little steeplechase meeting has filtered through Chester to Birkenhead and Liverpool and, as well, to plain Manchester and its next-door neighbour, the royal borough (by charter) of Salford. But then, in the days when England was partly Christian and partly pagan, and sub-divided into one may be excused having forgotten how many kingdoms, Bangor was the place of a monastery so big that when Ethelred, King of Northumbria, in 607, invaded the territory of his neighbour the King of Mercia, he wasted the monastery by fire and, it is written, slew by the sword 1,200 of the monks.

For my part, I no more believe all that one may read in the *Anglo-Saxon Chronicles* than I believe every word that I read in yesterday's *Evening Shrieker*. The *Anglo-Saxon Chronicles* were largely written upon hearsay, and, human nature being, and ever having been, what it is, men in those days, as in our own, dearly loved to adorn a tale. But, though one may mistrust the figures of the slaughter of the monks of Bangor, and doubt whether a century before the burning and the killing the monastery had harboured over 2,000 monks (as also recorded), one nevertheless can well believe that Bangor, also a Roman foundation, Bovium by name, was in its heyday something of a place. And as with it, and with the Oxfordshire Dorchester, so with not merely a few but scores and scores of our English villages. Among the things that the English race itself has reared there is nothing more worthy of veneration on the count of great age than the village. There are roads that are older, but

THE GREAT TRADITION.

they, as Watling Street, the Fosse Way, Ermine Street, and others of deep antiquity, belong to a civilisation older than our own. They, however most of their names smack of our race, are Roman, not Anglo-Saxon; and moreover, curiously enough, the Roman roads are markedly unrelated to the majority of the oldest of our villages, which are Anglo-Saxon. "The villages in question," Professor G. Baldwin Brown has well explained, "were isolated foundations, formed quite independently of the then existing land routes of communication, the Roman roads, on which they are scarcely ever found, but linked to each other by local lanes out of which at a much later date the present system of main and by roads was evolved."

One could find it in one's heart to cavil, without so much as a mere qualm, at the roads the imperial Roman made, but who would cavil at such of our villages as are in the Anglo-Saxon tradition might well be adjudged by discriminating folk a lost soul. The Roman roads, be their archaeological interest what it may, are too formal, too illustrative of Euclid's definition of a straight line, to be either beautiful or lovable, whereas the villages, according to the tradition of our forefathers, minister alike to eye and heart. The villages are not usually, perhaps, as old as they seem, but the illusion of age that they create, being a pleasurable illusion, is to be counted unto them for grace. Mr. Hilaire Belloc once said, in a memorable short chapter in *Hills and the Sea*, that at Ely, with the weight of the cathedral filling the sky before him, he felt the Norman. As well, were Mr. Belloc to happen on Ickwell Bury, in Bedfordshire, its fine green, its shady elms, and the thatched cottages dotted round the green, might he feel the Anglo-Saxon, the fellow who on more than one occasion gave the Danes as sound a drubbing as later, had valour alone counted, he surely might have given the Normans on the moor of Senlac. Of all the

villages I have seen none other gives as much colour as Ickwell to Professor Baldwin Brown's opinion, "The English country village is an early Anglo-Saxon creation, and it has remained throughout our history a characteristically national institution."

Yet it is not by Ickwell that I have been moved to make these few remarks, as the saying is, but, rather, by Bourton-on-the-Hill, a village in a north-west corner of Gloucestershire. One wins to Bourton-on-the-Hill from Moreton-in-Marsh—not, if you please, Mr. Compositor, the Marsh—in two miles, and in doing so traverses a level that now is no more marsh-like, except that it is level, than Lincoln Heath is heathery. So much for the March of Civilisation! you may exclaim as, having wheeled to the right out from the Fosse Way—the Fosse does duty for the main street of Moreton—you face along the fertile level that once upon a time was a marsh towards Bourton. Presently you shall find that the main street of Bourton, an extension of the road from Moreton, toils up the face of the horned line of hills, the easterly flank of the highly delectable Cotswolds, and is as spick-and-span yet withal as gay a street as you may see in a whole moon of travel. The spick-and-

spanness comes of our English sense of decency and order: the gaiety of the pink of valerian and the "good substantial yellow" of mummy.

This main street of Bourton, made, as I have said, out of a 'ard, 'ard highway, is no Oxfordshire Dorchester, no Flintshire (Detached) Bangor, nor yet an Ickwell Bury. There never was a cathedral here, nor a monastery to be set fire to and monks to be slaughtered; nor is there a fine green. The place, so far as I have read, is utterly devoid of historical significance. One of my several books on the Cotswolds—a fine fat volume, nicely illustrated—makes but a bare mention of Bourton-on-the-Hill, in another the place is not so little as indexed, and a third dismisses it in twenty short lines. Yet Bourton, for all it is so unstoried, and despite the wanton neglect of learned writing men, is in the Great Tradition. Here, on the south side of the street, partially hidden from the view of the traveller by a high wall with as nearly as high gates in the middle of it, stands, behind a little garden court, a stately old manor house, still a house of quality; and along the north side a long, irregular, and slightly curving line of the choicest cottages you ever saw, some with little bow windows

and some with dinky dormers, some naked and others parti-clad in creepers and roses, and all terraced above the roadway, so as to be out of the worst of the dust, and fronted each by a tiny garden plot. All the cottages, to the very humblest, are stone, native, a sort that keeps its colour by the aid of rain; and the long line of wall to which the cottages are terraced from the roadway, it also is good, clean stone, splashed with the colours of the valerian and the fumitory. Bourton-on-the-Hill is a picture, a symphony, an idyll, or whatever else that in fine you may choose to term a place to fill an Englishman with just pride and an American with envy.



Bourton-on-the-Hill, a typical English village.

GILT FOR THE LILY.

Perfection cannot be improved upon; but the equipment of the "complete" car can be added to.



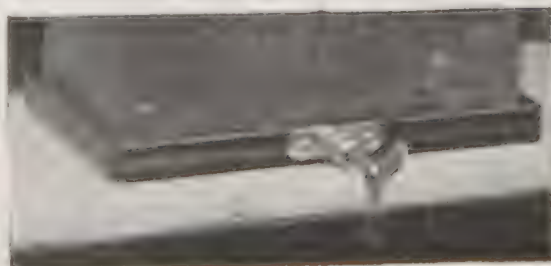
What is an automobile accessory? It may be anything from a split pin to an elaborate chested luggage trunk or a spare saloon "top" for winter use. The motor-owner, in fact, has never finished purchasing accessories. His hooter may have given trouble, or may not be an effective road clearer. He hears a particularly "gentlemanly" and yet penetrating note from another car, and on inquiry discovers that it is from a "Clear-Hooter," made at Highgate Square, Birmingham, and illustrated above. The price—£3 10s. complete with bracket, flex and switch—is attractive, so he buys one. Or he may not be able to hit exactly the carburettor adjustment that he wants, giving a combined maximum of efficiency and economy. Perhaps the Terry "AutoXtra" air valve (on the right), made at Redditch, may give the necessary finishing touch. Anyway, it is a neat little fitment, and its adjustment provides at least amusement. Then the "Knock-Tector," seen in use



in the large middle picture, an American gadget for which Storey's Garage, Petersham Road, Richmond, Surrey, is the British agent, is a useful detector of impending trouble. It is used in the same way as a stethoscope, but we should imagine needs a trained ear to be really effective. Need we specify the accessory below? Everyone seems to have a Stewart searchlight, and the usefulness of the long powerful parallel beam, together with the useful driving mirror embodied in the design, is generally appreciated. And then we come to the ever-present problem of the spare can. There are many carriers on the market, but many of them are either too expensive for their purpose, unnecessarily elaborate, or actually unsightly. The Cooper, shown at the foot of this page, is one of the best from every point of view that we have seen. It is scarcely visible when in use, and the price is 10s. 6d. The maker's address is 91, Aston Street, Birmingham.



There are good, bad and indifferent accessories. Those that are illustrated



in THE MOTOR-OWNER may be considered to bear the hall-mark of efficiency.

GREATER POWER AND A LOWER PRICE.

THE NEW STANDARD.

A Model in which a Slight Increase of Power has made a Vast Improvement.

OUR experience of the 11.6 h.p. Standard car of 1921 gave us the impression that while the two-seater was an almost ideal vehicle of its type, the four-seater was not possessed of merits quite so outstanding, except in the matter of its all-weather coachwork. Rightly or wrongly, this was what we thought; and we were the more eager to take advantage of the maker's offer recently for us to try the 1922 four-seater, since this was said to be a great improvement upon its immediate predecessor.

And so we found it. The increase in power from 11.6 to 13.9 has made all the world of difference to the running, principally in the matters of acceleration and hill climbing, and in saying that the 1922 four-seater is as good a car as was the 1921 two-seater we consider that we are giving the car the highest possible praise, for we considered the earlier car quite the best example of its type.

We found with the smaller car that it was possible, on such a highway as the Bath Road, to keep a steady pace of 40 miles an hour without effort on the part of car or driver, that all normal main road hills were taken by the car in its stride without serious diminution of speed, and that the control was scarcely more fatiguing than sitting in an armchair.

These same remarks apply to the new model with a load of five average

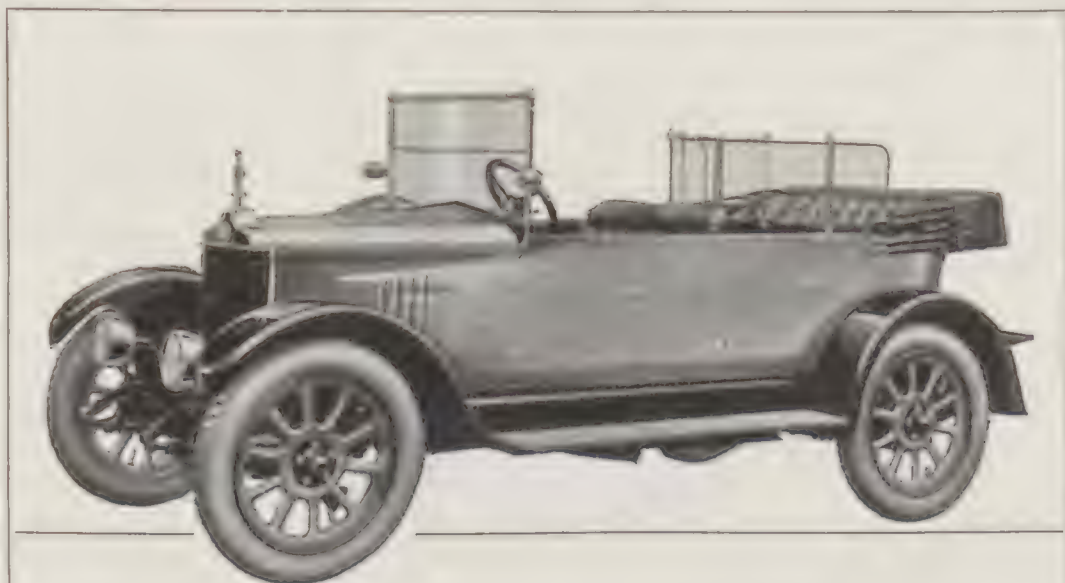
passengers on board; the car runs with the steadiness, silence, and speed usually associated with much greater engine power, and the usual necessity for keeping the engine turning fast in order to obtain good top-speed hill climbing is almost absent. The result is that the car can be driven to suit one's mood—there is never the need to rush a down-grade in order to get the necessary speed at the beginning of the opposing hill, never the irritation caused with the usual small car when a lumbering farm wagon or steam tractor obstructs one's desire to "rush" a slope. All the controls, from the steering wheel to the throttle pedal, are light, certain, and sensitive, and although we did not attain any startling speeds owing to the fog which dogged us from beginning to end of the run, with only very occasional interludes of clear sunshine, we gained the impression that the car possessed road holding qualities far above the

average and capabilities of speed sufficient to satisfy the reasonable requirements of the average owner.

The reader may think it only natural that a bigger engine in a bigger car, at a bigger price, should give better results, but there is more in the matter than that, since, for one thing, the more powerful 1922 model is actually cheaper than the 11.6 h.p. Standard of last year. Also, a mere 2.3 of additional horse-power does not amount to very much in itself, and is certainly not sufficient alone to account for the remarkably improved running of the later four-seater model.

The general characteristics of the new model are much the same as those which were so popular last year, but small improvements are noticeable here and there. The all-weather hood and its four side curtains—opening with the doors and affixed in a moment—are the same, except that a flap is provided through which a hand may be extended in warning to other traffic.

The various combinations, from all-open to all-enclosed, that can be obtained with the Standard all-weather equipment make it as good a vehicle for the "one-car man," who wishes to use his car for a variety of purposes, as any we have seen, and at the new price of £525 it presents remarkably good value.



In appearance the up-to-date Standard differs very little from its immediate predecessor, except that it is larger in all its dimensions. The all-weather coachwork, with various improvements, is retained.



The Row

THE first signs of Spring are shooting forth, bulbs are in bloom and the trees in bud, the call of the countryside arises anew, and a gallop in the park is the complement alike of nature and youth. The soul of a people is disclosed by their sport, and the love of horsemanship in early Spring, denotes the quickened pulse and the love of the open air of England. So too, the motorist emerges from his winter's quarters, eager to renew acquaintanceship with the countryside—rider and driver, horse and car, are as one in their interpretation of a common desire. Through long years of test and trial the ROVER has proved a faithful friend to many thousands of motorists, nothing less than unquestioned superiority could account for the intensity of favour in which the ROVER is held the world over.

The Cars illustrated are the 12 h.p. ROVER FOUR-SEATER and the 8 h.p. ROVER TWO-SEATER

ROVER

"The Car that set the fashion to the World"

1922 MODELS AND PRICES

12 h.p. CHASSIS £495, 12 h.p. TWO-SEATER £625, 12 h.p. FOUR-SEATER £650, 12 h.p. LIMOUSINE COUPE £750, 12 h.p. DROPHEAD COUPE £800, 12 h.p. SALOON £900, 8 h.p. TWO-SEATER £220

Catalogues and full particulars may be obtained from our Agents throughout the country, and from

THE ROVER COMPANY, LTD., METEOR WORKS, COVENTRY
59a New Oxford Street, London, and Lord Edward Street, Dublin.



"The most improved Cars of 1922"

This is the considered judgment of those who have tried the present type of 16/40 h.p. and 24/60 h.p.



14 h.p. 2-seater SUNBEAM.

SUNBEAM CARS

SOME OF THE SUNBEAM

Models and Prices

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For prices of other models manufactured by the Company, please see their complete catalogue. Post free on request.

This improvement is largely due to the entirely new
OVERHEAD VALVE ENGINES
with which these cars are now fitted.

The power curves of these engines are remarkable, and show a steadily progressive output up to full throttle to a point which effectively demonstrates that the Company has well profited by the experience gained in producing high efficiency power units for aircraft.

The engine of the new 14 h.p. Sunbeam is very similar, and the range of three 1922 Models evinces exceptional progress upon individual lines.

The coachwork fitted to these chassis is up to the highest Sunbeam standard.

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COATALEN
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ENGINES
100-1,000 h.p.

OUR TOURING SUPPLEMENTS.

The Inauguration of a New Idea in Motoring Literature.

BEFORE this month is well out we shall be able to say that the touring season has begun. Few people, maybe, will have actually gone away for more than the shortest of week-end runs, but nearly everyone who owns a motor-car will have taken into consideration the forthcoming Easter holidays, and although some may have had their plans cut and dried for months, there are certain to be many others who are still at a loss.

Perhaps "THE MOTOR-OWNER Touring Supplements" may help them. They—the Supplements—will certainly prove of assistance eventually, for it is intended to produce a series, in the course of which the whole country will be covered—we nearly said exhausted, but that, of course, would be absurd, for it is obviously impossible to exhaust, in such a country as England, the roads of a district approximating three hundred square miles in a single sixteen-page Supplement.

It was a little difficult to know what to do in regard to these Supplements, for there are two separate and distinct schools of automobile tourists. There is the man who sets off from his headquarters with the intention of doing a continuous tour of a couple of thousand miles, and there is the other who, with a given amount of time at his command, determines to tour in a certain district.

From our point of view, we have come to the conclusion that the latter is the more important, since in catering for his needs those of the long-distance man also are to a certain extent covered. So we, in our forthcoming Touring Supplements, have taken on each occasion a certain district of the approximate area already mentioned, and have outlined in it a series of runs of varying lengths, in the course of which the majority of the points of interest in that district are touched upon. We have imagined a tourist who, for one reason or another—possibly because he has friends or

relations in the neighbourhood—has selected a certain town as his headquarters. We have imagined that on some fine days he has decided to start off early in the morning and make a real motoring day of it, covering perhaps a hundred and fifty miles or more. Other days may not open in promising fashion, and, looking at the weather, he decides to postpone the start until after lunch in the hope that conditions may improve. Or he may have an appointment in the afternoon, and desire to take a comparatively short run before lunch. Then, again, the weather may not clear up until well on towards evening, in which case an even shorter run between tea and dinner may prove acceptable.

We shall endeavour in the course of each Touring Supplement to meet each of these varied needs, and the districts will be found to be dealt with from the point of view of long, short and medium length runs. As we have said, it is ridiculous to hope to exhaust so large a district in a mere dozen runs; for where, in England, could one find three hundred adjoining square miles that would not well repay to the antiquarian, the nature lover, years of serious investigation, mostly on foot?

The first Supplement will deal with the country comprised in a circle having a radius of roughly fifty miles, with Birmingham as its centre. That suggests, of course, the Shakespeare country, and this country is naturally not neglected. But there is a good deal more than that to Warwick, Worcester, Stafford and Shropshire. There is Evesham and Bridgnorth, for instance—both beauty spots worthy on their own account alone of a run out from Birmingham—and many another which we need not enumerate here. Later, there is the West Country, the Lake District, North Wales and South Wales, the Border Country, Fenland, the Yorkshire moors, and what one might call the Middle West, having Salisbury as its centre, to be dealt with. Each district will be given a Supplement of its own, and each

Supplement will treat of the district roughly as we have described.

When this series is complete, it can be imagined that the complete collection will form possibly the most valuable item in the automobile tourist's library so far as the Home Land is concerned.

It is possible that neither the first nor the second Supplement will prove of immediate interest to an individual reader, since he may have decided already to go to a district not dealt with in those two issues. This, of course, we cannot avoid by any other means than publishing the whole series of Supplements in book form right away; and this, at the moment, we have no intention of doing. We should be forced, in this case, to make the usual charge for such a work in order to cover cost of production, but our desire is that our readers shall have the benefit of the Supplements without extra cost. Although inserted loosely in each regular issue of THE MOTOR-OWNER, the Supplements will form a part of the number, and readers who purchase their copies casually, instead of adopting the more sensible plan of registering themselves as regular subscribers, should make sure that the Supplement is included in the copy handed to them. And we would urge every reader, even though he may not be interested in the particular Supplement which, by chance, is published first, to put it away carefully. In the course of time he will have a Supplement—perhaps more than one—that *does* immediately interest him. He will then begin to realise the value of the series as a standard work on automobile touring, and wish that he had the complete series.

We shall endeavour to meet the wishes of readers who desire to make up complete sets later on, even though this necessitates printing a considerably greater number of Supplements than of the actual copies of THE MOTOR-OWNER, but we cannot guarantee that any particular Supplement will not run out of print.

TRANS ATLANTIC TENDENCIES.

The Ever Increasing Popularity of the Six-Cylinder Engine.

A COUNTRY that has at least nine million cars in use, a rapidly increasing army of motorists, and of factories capable of a mouth-watering output is surely one from which we can draw certain useful lessons.

Of course there is only one land that "fills the bill"—America, the U.S.A., where every tenth man styles himself judge or millionaire, the home of condensed beef and "improved" English. In that country we Britishers may, so to speak, regard our future as in a mirror. For not all enterprise and originality are relegated to the thither side of the Atlantic.

At the moment, however, we cannot emulate it. Our industries, hopes and achievements are on a more limited scale. That is not necessarily a drawback—after all, our population is less than one-half of that which is headed by New York City.

Yet we may admire and criticise, and from what the recent motor show at New York City has just revealed draw various interesting lessons. For we are likely to find many more trans-Atlantic cars on our roads; and, anyhow, the whims of their designers are informative.

For twenty-two years that exhibition has taken place. Always instructive, it differs from our own in that nearly all the cars are home-produced. Out of the ninety-three different makes only a couple were alien. What a contrast to Olympia! And even then two European countries shared the honours, England contributing the Vauxhall, while Italy sent an Itala.

It would appear that American cars are cheapening rapidly, even good "stuff" being within the scope of the democratic pocket. Air-cooling is, as it has long been, in considerable favour, while "sixes" would seem to displace other types in popularity.

As with us, prices at the New York show varied widely. But not quite so widely as at Olympia. For about £2,000 you could purchase the dearest

car in the exhibition, while the cheapest cost 575 dollars.

But the New York show itself is but a poor indication of American motor trade. Nine million cars are in use in the U.S.A., to which must be added something like one million commercial vehicles. A prodigious figure! Regard, again, last year's output. That provides other figures which give us "furiously to think," for more than one and a half million cars saw the light in the States during that period, not to mention 145,000 vehicles for commerce.

To manufacture these American cars a hundred and five factories toil. To that number add yet another thirty-five to get those making business vehicles. More than sixty thousand retailers dispose of these two groups, and about a quarter of a million operatives are employed in the originating factories.

These are tall figures, and are no doubt the outcome—in part, at any rate—of a taxation that is commendably low. For the average American car-owner pays a mere £8 per annum, a figure less than it appears in view of the comparatively greater number of high powers.

We remarked above that the six-cylinder is the most popular in the U.S.A. No fewer than eighty-two different firms manufacture that sort, at prices between just above £200 to, in a few cases, a figure approximating our own. With these six-cylinder chassis goes a choice of four hundred styles of bodies.

Four-cylinder cars come next in popularity, numbering forty-eight, of which only nine cost £600 or over. A modest "baker's dozen" represents the "eights," while only a couple possess twelve cylinders.

Yet ten years ago there was a single-cylinder car on the American market, accompanied by twice that number with two cylinders. There were, even then, several "sixes," but four out of every five cars of the period employed four cylinders. The "eight" and the

"twelve" existed only in the designer's brain.

It was not till 1915 that the "eight" appeared, in the form of that striking vehicle introduced by the ever-progressive Cadillac Co. It was followed a year later by Packard's masterpiece, later emulated by the Haynes.

To give a sound opinion as to what number of cylinders is the most popular with Americans is hardly possible. Considerations of finance have their sway in the States as over here, and the problem is complicated again by a difference in the number of owner-driven cars as compared with that where a paid chauffeur is in control.

Nothing particularly radical was to be seen at the N.Y. show, but numerous chassis details are improved. Metal universal joints are frequently oil-lubricated, and fabric universals are becoming popular. Grease-cups are disappearing, as is also straight bevel gear drive, and the single plate clutch finds more adherents, a statement that is likewise true of transmission brakes.

Quite a large number of the exhibits had devices for preventing theft and for subduing chatter and rattle, while attempts are made to position gear change levers more suitably. The new chassis are more robust on the whole, steering wheels are improved, and anti-friction bearings are frequently incorporated in the steering mechanism.

From the statements above it is obvious that the United States is developing the motor industry on very extensive lines. They are, in fact, getting a tremendous grip upon the world's demand. Europe, the Colonies, and almost every land in the other hemisphere offer a ready market, of which the New York show gave but small indication. The picture speaks for itself. If ever Britain is to develop the automobile industry in the fashion to which she is entitled she must make a start at once. It's ill work treading in other men's footprints.

"THE MOTOR-OWNER" IN FANCY DRESS.

A happy colour scheme for which we take a little credit to ourselves.



WE have heard repeatedly of successful fancy dresses which have been based upon the colour scheme in the pages of "The Motor-Owner," but we have not before had an opportunity of illustrating one of these costumes. In thanking Miss Holland, the daughter of Mr. Clive Holland, the well-known author and traveller, for providing us with this opportunity, we have also to congratulate her upon the happy result achieved. The pity is that a black-and-white illustration cannot do justice to the admirable blending of colour for which this costume was awarded second prize for originality at a recent fancy dress ball given by the Junior Imperial League.

Photograph by Elwin Neame.)

SOME THINGS THE MOTOR-OWNER MUST NOT DO.

T H O U S H A L T N O T — — !

We leave undone many things that we ought to do—but here are some “Don’ts.”

Splash nursemaids—they might bite. Try to avoid splashing anyone.

Overtake unless you’re sure the other driver knows you’re there.

Make a two-seater do the work of a charabanc, nor make a 10 h.p. engine work like a 30. They will, but it’s cruelty to dumb automobiles.

Expect to be the only pebble on the beach; keep an ear open for cars wanting to overtake.

Tinker, if you must, note existing adjustments before disturbing them.

Hurry a tyre repair; time and care make a good patch.

Injure a policeman; either kill him or leave him alone. (N.B.—This is a joke.)

Neglect the gear box; it bears the same relation to the car as the Tube lift does to you.

Go downhill faster than you go up; a cheese can do that.

Say a word more than necessary in a conflict with the law. What you thought in the heat of the moment doesn’t sound the same in a police court.

Turn a corner at the same time you put your hand out. Give the other chap reasonable warning.

Hold your foot on the clutch pedal. It will still be there when you want it.

Elbow the other fellow into the ditch; give him room, and he’ll do the same—sometimes.

Make the starter do what you wouldn’t do yourself. The carburetter is there just the same.

Occupy all the road when a car is coming towards you up a steep hill. Pull up if necessary.

Trust altogether to the point policeman; use your eyes as well.

Open up the auto-vac unnecessarily; you might clean the filter every seventh year, though.

Run on slack tyres; hire a nigger if you’re lazy.

Omit to slow up until you get to a corner; the road may be greasy under the trees.

Wear your hooter out; on the other hand, don’t let it rust away. It is for reasonable use.

Nearly wear out one pair of brakebands before using the other. Keep them going alternately, especially on a long hill.

Ever drive fast because you’re in a hurry—only because you feel like it.

Run your batteries down when you’ve filled up a dry petrol tank. Give the engine one or two turns over and the auto-vac will syphon itself full.

Mount a “Caution, Carriage Drive,” warning outside your own entrance. Come out carefully; it’s up to you.

Use pride to drive the car; use your head.

Short-circuit right-hand corners; another fool may be taking his left turn wide.

Try to take a “close-up” of the back of a ‘bus with your bonnet. Its brakes are probably better than yours.

Nurse the “unwritten law” delusion at cross-roads. You’re not a great stickler yourself.

Open up through a crowd of people round a stationary tramcar. Wait; you’re only human.

Take a wheel off before you know the jack is safe. Otherwise carry two jacks and three or four bricks.

Drive faster than you can.

Oil up the plugs by dropping down a hill with the clutch in, engine switched off and throttle closed. You don’t save petrol, anyway.

ALSO SOME SAFEGUARDS FOR PEDESTRIANS.

THE OTHER POINT OF VIEW.

How the Pedestrian may avoid "Contributory Negligence."

Act without hesitation; he who wobbles in the middle of the road is lost.

Look before you leap; not while you are leaping, nor after you have leapt—off the kerb, that is.

Safety first is a sound maxim for pedestrian and motorist alike.

Only look towards approaching traffic when you're crossing the road. To look both ways at once causes confusion.

Select your own path through the traffic, and leave your companion to pick his.

Ordinary common sense is better than first aid—or maybe a funeral.

More accidents are caused through confusion than carelessness. Your confusion will confound the motorist.

Every group or crowd in a country road splits at the approach of a car. It's wrong. All should keep to one side.

Stupidity abounds in all walks—and rides—of life. Be the sensible one.

Avoid haste—but don't dawdle—in crossing the road.

Find a dry spot if you must alight from a 'bus or tram when it is in motion.

Every driver expects that you will do the obvious thing in all circumstances. Therefore, do it if it's obvious to you also.

Get away from the idea that the other chap's always to blame. He probably is, but in France they would run you in for obstruction.

Unusual traffic complications call for unusual measures. Let hurry go hang and be clear as to what you are going to do.

Allow the driver who is travelling quickly to get away with it. Don't trust his brain and brakes.

Ridiculous? Well, if you don't get in his way he can't knock you down.

Don't get excited; it's nearly as dangerous for you to do so as for a car driver to lose his head.

Splashes of mud are unpleasant, but if you cross immediately behind a car you'll get 'em and only have yourself to blame.

Faith may be misplaced—you may misjudge that opening, and then a second saved means a life lost.

Occupy your mind, by all means, but avoid absent-mindedness as you would the plague.

Rely on your own judgment—the other man may be a fool, and fools will ever out-do angels.

Pedestrians have a right to the road. So have other folk, and they're not always bashful in asserting it.

Ever heard of Achilles? A tiny place in his heel was vulnerable. There's much more of you a motor-car can hurt.

Don't change your direction too suddenly. Not even the best car can jump sideways.

Every man thinks himself a hero. But when he picks himself out of the gutter that opinion suffers a sudden puncture.

Stopping unexpectedly to think helps some people; but the middle of the road is not the best place to read the evening paper.

Talk by all means to your pal—we all do it. But a clever man remembers he has eyes and ears as well.

Rashness is the attribute of a child. But to pl. y "last across" is akin to *felo de se*.

Imitation of the man in front may be laudable. But traffic will not wait for you to do as he did. It's the step behind that matters.

A fool and his money are soon parted. Carelessness on the highway will part them more quickly than marriage.

Never expect the next car to pull up as the last one did. A recent shower may prove to you the waters of Lethe.

Share the road; don't act as though you own it all.

PLEASE YOURSELF; IT'S SELFISH, BUT SAFE.

SPEEDING—AS SUCH.

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This brings us to a rather interesting point. We will put it this way: Is even the most experienced driver justified in speeding merely because he is in a hurry, *unless he is also enjoying it*? Given equal skill at the wheel, we should say that the man who drives just as fast as, and perhaps, here and there, even a little faster than, his judgment pronounces to be safe, is a whole lot less likely to have an accident than another who is anxious to get to a certain place at a

certain time and has left a bare margin of time to do it in. The mere fact of his anxiety not to be late will tend to cloud his road-judgment; moreover, his mood may be far removed from a condition to appreciate the joy of speed, and his health may not be at the tip-top of its form. The one drives fast because he likes it; the other because he's got to. We leave it to the reader to say which of these two individuals is potentially the more safe.

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But, in the everyday affairs of motoring—the average use of a car by the average individual—we should say that no driver is justified in driving fast unless he really wants to; and if he is a good driver he will not want to unless his judgment tells him it is safe. One's flapper friends are very apt to say—especially if one is so ill-advised as to ask: "Not going too fast, am I?"—"Oh, no! I love it! Let her rip!"

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SOME OF LIFE'S LITTLE TRAGEDIES.

race is usually doomed to a more painful eternity than was ever conceived by a Dante or a Doré—or a Billingsgate fish porter; but the true humanitarian who knows anything about the intricacies of the subject would unhesitatingly cast his vote in favour of any official handicapper who might apply for election as Governor of the Bank of England, Archbishop of Canterbury, or Auditor of the Pensions Ministry. For the task of handicapping motor-boat races is one that, carried out conscientiously, requires the genius of Euclid, the acumen of Sherlock Holmes, the long-suffering patience of the Prophet Job, and the combined wisdom of the Masters of Trinity House. So far as I have been able to probe the methods of motor-boat handicappers, they start by assuming that when a cruiser is declared to be incapable of exceeding 11 knots the truth is that it can do 15 knots with the engine half-throttled. Then they consult tide-tables, meteorological forecasts, the probability of the moon suddenly and unexpectedly performing an eclipse, the latest reports from the Gulf Stream, the likelihood of a contiguous yacht race interfering with one motor-boat more than another, rumours regarding the owner of one boat having had her bottom scraped beforehand and of another boat having changed from Shell Aviation spirit to Pratt's diluted with Benzole. Having got together as great a complexity of data and figures as they can collect, they proceed to juggle with slide-rules, the differential calculus, and the Fourth Dimension, eventually producing a handicap that evokes simultaneous and offensive criticism on the part of every owner who has entered his boat—an unanimity of condemnation that, when one comes to think of it, proves that the handicap must be a damned good one.

Seaside regattas are pleasant affairs, not to be taken too seriously. The committee of management usually consists of the mayor and a few town councillors, twenty or thirty worthy tradesmen whose life's ambition has been achieved when they sport their rosettes of office, and half a dozen local and visiting yachtsmen who do the work. The local bank manager, or one of his chief clerks, usually acts as treasurer, but in some cases the secretary and treasurer have an engaging habit of receiving entries without fees and then—on the morning of the races—going or sending aboard

each boat to collect such fees, regardless of whether they have been paid or not. The committee boat is usually a sailing barge, moored outside the pier, and here congregate a crowd of the relations and friends of the officials, whose presence lends that variety that we are told is charming to the scene. An ex-navy man will usually be employed to hoist the flags denoting each competition, but as no one knows flag A from flag Z, the result is more picturesque than informative. Event follows event so quickly that a swimming race will be overlapped by a double-sculling race, and sometimes the officials will be so engrossed in watching a contest between Girl Guides and Boy Scouts that they will omit to observe that the time has arrived to start a small yacht race, or they will be so keenly interested in a greasy-pole contest as to forget to take the times at which motor-boats cross the line. This leads to a pleasant

aftermath of heated and protracted conference before some sort of compromise is arrived at, and the committee decide to award the prizes to the boats they think ought to have won.

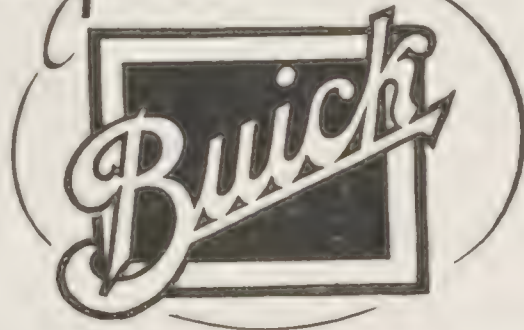
Motor-boats of the cruising class are furnished with masts, supposedly to enable them to sail home when the engine ceases to function. The secret ambition of the owner is that the engine will go on strike when he has a select party of land-lubbers aboard, whereupon he will proceed to drag from its lair underneath the counter an assortment of sails, and hoist them with a great show of seamanship, shouting the while to his Paid Hand to heave the foresheet up to the mizzen halyards, to gybe the main outhaul to the bowsprit shrouds, and to swig the starboard taffrail over the topping lift—all of which instructions the Paid Hand politely ignores. Then, if the wind be aft, the boat will crawl ahead at a pace that would do credit to a high-class funeral; but it usually happens in such cases that the wind is foul, whereupon the owner proceeds to demonstrate his consummate yachtsmanship by tacking across and across the wind: if the tide be fair, he will succeed in tacking from one point to one other, back and forth, with undeviating regularity: if the tide be foul he will sail crabwise and steadily go further astern at every tack. It is an exhilarating and absorbing pursuit, only becoming somewhat monotonous and unsatisfying when the sun sinks below the horizon and the owner stentoriously gives the order to strike the flag, in accordance with nautical etiquette. Then the passengers begin to look a bit worried, thoughts of passing the night aboard deficient in edible provisions are temporarily relieved by potable refreshments; and as darkness creeps on it is with a huge sense of relief that the throb of a distant engine is heard, and a shilling-an-hour excursion motor-boat appears to tow the derelict to port.

Yet the risk of such an eventuality need not deter the prospective motor-boat owner. The sailing yachtsman is liable to similar misfortune. Only last week I fell in with a twelve-ton yacht becalmed with a foul tide; ladies aboard, but no provisions. When the tide ebbed it would take them down the Roach into the Crouch; then they must anchor until the flood tide drifted them up to Burnham seven or eight hours later. I towed them to their mooring in 36 minutes.



A useful 50-foot Thornycroft cabin cruiser, engined with twin Z/6 type 70 b.h.p. motors. The beam is 8 feet, and the draught 2 feet 6 inches.

An Important Announcement concerning the



"In a class by itself"

From 13th February, 1922, the prices of BUICK Cars are as follow:—

BUICK 4-Cylinder Touring	....	....	....	£450
Standard Chassis ...	...	...	...	£350
2-seater ...	...	...	...	£435
Coupé ...	...	...	...	£615
Saloon ...	...	...	...	£640
BUICK 6-Cylinder Touring	...	....	....	£580
Chassis (short) ...	...	...	...	£450
Chassis (long) ...	...	...	...	£465
2-seater ...	...	...	...	£570
5-seater Touring de Luxe ...	...	...	...	£625
3 Passenger Coupé ...	...	...	...	£800
5 Passenger Saloon ...	...	...	...	£890
7-seater Touring ...	...	...	...	£650
7-seater Touring de Luxe ...	...	...	...	£700
4 Passenger Coupé ...	...	...	...	£860
7 Passenger Saloon ...	...	...	...	£955

Thus the reduced cost of production is passed on to the public forthwith.
The new prices are more than a reduction.

They are a part indication of General Motors Service, and an earnest of how General Motors, Ltd., have determined to put the possibilities of BUICK ownership before thousands who are now hesitating over their choice of car.

GENERAL MOTORS, LIMITED
THURLOE PLACE, LONDON, S W.7

MADE IN CANADA



Albert

"The Car with a Personality"

A RECENT copy of THE MOTOR-OWNER said, "It would be impossible to find a much more simple vehicle, while all the elements of control—clutch and brakes, pedals, accelerator and steering wheel—are not only light and easy to operate but are most comfortably placed."

Add to this its wonderful hill-climbing ability, its speed and its handsome appearance, and you summarise the Albert Car.

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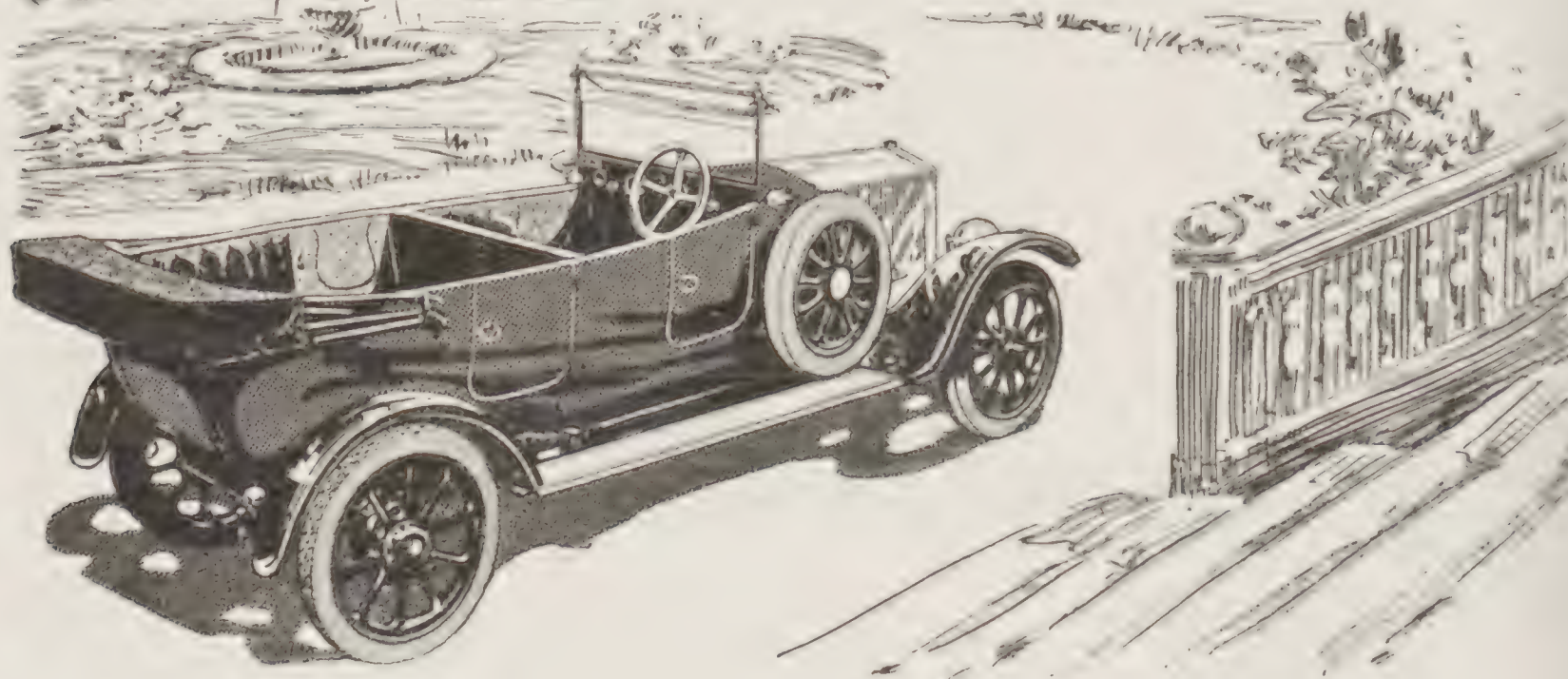
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THE DISINTEGRATOR.

A New Machining Process which did not "pan out" well in practice.

By Robert W. Beare.

THE Designer strolled into the Warentry Arms one Saturday afternoon a week or so after the unfortunate *contretemps* related in the February number of THE MOTOR-OWNER, expecting to find his motor-cycling friends, Guthrie and Fred, who had been witnesses of the disaster to the "D4" car, awaiting him. Fred alone occupied the lounge.

"Monarch of all you survey, Fred?" remarked the Designer. "Where's Guthrie?"

"Just what I was going to ask you. He used to say that *your* brain was turned, but I'm hanged if the shock which put you right doesn't seem to have set him adrift!"

"How do you mean?"

"Well, you know what a jolly sort of chap he was—level-headed enough, although he made himself out to be such a silly ass at times?"

"Yes, I've often wondered whether he was quite such a fool as he seemed. But he was cheery enough. Why, has he changed, then? I haven't seen him since our little adventure."

"Changed? I should just think he has! I've only seen him twice myself, and then could scarcely get a word out of him. The first time he was a bit communicative, but all he seemed able to think of was the fourth dimension and the possibilities your discovery would have opened up."

"I didn't think he had it in him—bit of a crank, though, isn't he? But what about the second time you saw him; when was it?"

"About the middle of the week. I looked in at his office just before lunch time, but found him with his coat off and his hair ruffled—sheets of paper covered with calculations all over the shop. I said, 'Busy, Guth.?' but he held up his hand for silence and kept me waiting several minutes before he even looked up. Then he didn't speak."

"I thought it was about sherry time," I said.

"Sorry," he replied; "got much too much to do—shan't even go out to lunch."

"'But what's the sudden rush?' I asked.

"'You wouldn't understand,' he said, without any air of superiority; 'but the Designer set me thinking. I can't get any forrarder with his fourth dimension idea, but I'm working out an old notion of mine that there's a lot to be learnt about gravity and magnetism. I believe they are the same thing. And now you're no wiser, are you?'"

"With that I left him, and I haven't seen him since."

"Gravity and magnetism," repeated the Designer. "I wonder if he has anything tangible to work on. If not, he'll drive himself crazy. D'you know, I've quite an idea he'll turn up this

"Wanted on the 'phone, sir," a waiter broke in.

"Right—I'll bet that's Guthrie, Fred."

The Designer went into the hall to answer the call, returning in a few minutes with a somewhat perturbed air.

"It was," he said. "But I'm worried about him. He tells me he has an entirely new manufacturing process worked out with the exception of a few details, and he's coming here right away to go into it with me—thinks that together we may get over the little difficulties that have stumped him. I asked him for particulars, but he wouldn't give them—just said he'd done away with the necessity for drilling and boring—in fact, for the use of any cutting tools except those for the final machining. He finished by asking if I knew anything about optics—though what the dickens that has to do with a machine shop I'm hanged if I can see."

"Oh, well, he'll be along in half an hour or less," remarked Fred. "We must wait."

In less than the allotted time Guthrie "blew in" in his old breezy fashion—if the chronicler may be pardoned for the use of a slang term.

"Sorry I was a bit short with you

the other day, Fred, but you could see I was up to my eyes, couldn't you?"

"That's all right, Guthrie," was the reply. "But what's all this about a new manufacturing process, and so on?"

"Yes, let's have the story, Guthrie," said the Designer. "What have you been trying to do?"

"Lookin' for a substitute for sciatica," was the amazing reply.

"A substitute for sciatica? Don't be a fool! What do you mean?"

"Just what I say. When I was in the Army I hated drills and route marches, so I used to 'go sick' with sciatica. Now I want to do away with drills in engineering works. Sciatica's no good, so I had to find a substitute!"

"You blithering idiot!" laughed Fred. "Still, I see what you mean. But have you found it?"

"Yes."

"Well, what is it?" This from the Designer.

Guthrie lolled at ease in an enveloping leather chair.

"I set out with the idea," he said, "that gravity, centrifugal action, molecular attraction, magnetism and electricity, if not the same thing, were at least akin. It is the nice blending of the various forces that governs the universe. You'll admit that, Designer?"

"For the sake of argument, yes. Go on."

"If you grant me that much, then you must grant that if anything happened to disturb the balance of those forces, something pretty serious would happen to the universe—either as a whole or perhaps only the part of it affected. That so?"

His audience looked doubtful.

"It seems to follow," agreed the Designer, non-committally.

"Listen to him!" Guthrie ejaculated. "Anybody would think I was trying to borrow a fiver! Anyway, since 'it seems to follow' in regard to the universe, I want you to 'follow' me when I state that the universe is

THE RELATIVE FLUIDITY OF SOLIDS.

divisible into portions of infinite smallness, and that each divided portion becomes a little universe on its own—like a worm, you know. Got that?"

"Yes, that's clear enough, but I don't pretend to agree or disagree. Let's have the whole argument. What happens to your little universes?"

"Well, don't you see, if I am right, any portion of the universe, being governed by the same laws of gravity, attraction, and so forth, as the original whole, would be subject to complete or partial disintegration by the same means?"

"Yes, yes! Do get on with it."

"Hush, dearie; don't be impatient! Well, now take a portion of the universe that you are familiar with—a lump of metal which you want to bore and shape into the cylinder of a petrol engine."

He forestalled the objection which he saw each was ready to fire at him.

"Yes, I know they're mostly cast, but that doesn't affect the question. Put it this way: You have a chunk of metal which has to be reduced in weight and altered in shape for some purpose. Normally that 'portion of the universe' is in a state of perfect balance as regards the various forces we have been talking about. If that balance could be upset, and if the upsetting could be perfectly controlled, don't you see how the disintegration could be made to occur locally—just where it was wanted? The middle, instead of being bored out by a slow and cumbrous process, could be "disintegrated" out; the outside could be trimmed and shaped in the same fashion, leaving only a final buffing, or anyway very light machining, to produce the finished article. Now what have you got to say?"

"We'd better humour him, hadn't we?" said Fred.

"No, he's not quite mad," replied the Designer. "That's all very cleverly thought out, Guthrie; but there's a devil of a lot of 'if' about it, isn't there?"

"No 'if' at all. Einstein would tell you that all solid substances are relatively fluid. If you grasp that, apply it to my theory—it's more than a theory, really—and you will see the reasonableness of it."

"I know; relativity will explain anything. But even supposing that you are right in every detail, we can't control gravity or magnetism, molecular energy, or centrifugal force, so what's the good of it all?"

"Wrong again! I can control 'em!

I've worked out the proportion to which each separate force enters into the scheme of things universal, and I have evolved an instrument capable of producing on a small scale a composite force of the exact blend which is even now holding this earth in suspension in space. What is more, I can vary the composition to cause anything from perfect security through all grades down to absolute disintegration." I nearly said annihilation, but that would infer destruction. I don't know if you appreciate the difference, but while matter is indestructible it is infinitely divisible, and after my Disintegrator has been at work it is divided into particles so infinitely small as to be invisible."

"Are you actually and seriously claiming to have achieved this, Guthrie?" asked the Designer, Fred being too amazed and enmeshed in a tangle of words he did not understand to hazard an observation.

"Certainly I do—I said I would quit fooling. At least, when I say I have done it, I mean that I have worked it out on paper to the last detail, and have made the projector. Theoretically it will work, but I want you to be present at the first test."

"But you asked me if I knew anything about optics. Why?"

"Well, I've struck a snag. I can control the disintegrating effect of my force, but I cannot control its direction or limit its action to one locality with sufficient delicacy for practical

purposes. The force emerges from the projector in the form of an almost invisible ray, and it's like dealing with an awkward gushing jet of water. I want to be able to cut it down to a mere pin-point, expand it to cover an area of larger but accurately gauged dimensions, or make it take a cut of exact depth, just as you would on a lathe or a planing machine. As it's a ray, it seems to me an optical job."

"H'm. Yes. But I foresee some difficulties that haven't occurred to you. Where is the Disintegrator? When can we see it?"

"At home—when you like. Come now?"

"The sooner the better!"

The three started up their various mounts and returned to Covwick, proceeding direct to Guthrie's house, the precincts of which he had fitted up a small laboratory.

Flinging open the door, he invited the others to enter, which they did with some show of eagerness. Most notable of the contents, and obviously the exhibit to which all else was subordinated, stood in the centre of the floor a solid glass slab about three feet square and several inches thick, from which arose a pedestal of some undetermined substance—porcelain or some such thing. Crowning this, at a height of perhaps four feet from the floor, was a second, much smaller glass slab, and mounted thereon just a mahogany box measuring roughly eighteen inches in all directions.

Having taken in these details, the visitors glanced about them. Down one of the longer walls of the laboratory they saw an array of glass-fronted cupboards, containing apparently nothing but chemicals in bottles and jars of all shapes and sizes. Opposite was a working bench, with an excellent equipment of tools neatly arranged in a rack at the back, and with a vice and bench drill, while before the short wall, facing the door, stood another bench, which on closer examination proved to be constructed entirely of glass and supported on six glass legs or pillars. Its surface was devoid of any cumbrance; but they noticed that the window behind it occupied the greater portion of the wall, and was composed of a single sheet of faintly violet-tinted glass.

The Designer turned to Guthrie.

"Well, you seem to have a nice little place here," he remarked. "I suppose this"—indicating the central pedestal—"is the Disintegrator?"

"It is—at least, the actual instru-



"... working out an old notion that there's a lot to be learnt about gravity and magnetism..."

A RAY CAUSES DISARRAY.

ment is inside that mahogany box. It just lifts off—see?”

Guthrie lifted off the wooden cover, disclosing to view an apparatus not unlike a certain form of motor horn. The barrel ran back in a gentle taper from the slightly belled mouth to a protuberance which might well have been the usual “noise box.” Here the resemblance ended, for projecting from this box rearwards were three short levers, while the whole of the circular casing was apparently a sleeve which could be revolved around the body of the box, a scale on the stationary portion and a little arrow on the sleeve suggesting that this formed some method of adjustment.

The Designer and Fred drew nearer to examine the instrument more closely, the latter tapping it with his finger nail.

“What substance is this?” he asked. “I thought it was oxidised steel or some such thing?”

“Glass—everything’s glass,” Guthrie replied. “Glass is the only material, so far as I have been able to discover, which is little affected by my force, and even that I have had to subject to special treatment to make it any practical good as an insulating material. To tell you the truth, I’m not very sure of it now. But let’s get on with the test. What shall I ‘disintegrate’—if I can?”

“You’re positively nervous, Guthrie!” Fred exclaimed.

“I know I am. So would you be if a prospective fortune were about to be put to the test at a touch of a lever. Look here, we want this thing to act on metal. Will this chisel do?” He took one down from the tool rack and laid it on the glass table at the end of the laboratory, in line with the mouth of the Disintegrator.

“Now the trouble begins,” he continued. “My means of directing the ray are crude. I have to take a sight along the barrel”—sighting action to words—and trust to luck. There, I think that’s good for an ‘inner,’ anyway. Now, we’ll cut the ray down to cover the smallest possible area with this sleeve—it operates a glass diaphragm like the stop of a camera lens—and start her at low power.”

He stooped to the foot of the porcelain pedestal and depressed a lever which they had not noticed before, whereupon the atmosphere was filled with a high-pitched trilling not unlike the note of a mosquito about to strike. It was uncanny, unnerving—they almost expected to hear the “ziz-z-

zing” end in the fatal “zip!” of the insect.

“Wicked note, isn’t it?” said Guthrie. “It’ll stop when I switch her on. Now—watch that chisel!”

He pulled down the centre switch of the three on the instrument, the high-pitched note ceased, and a ray from the instrument, so pale as to be almost invisible, was seen to bridge the intervening space and impinge on the bright head of the chisel.

The visitors involuntarily moved towards the glass bench.

“Keep back, for God’s sake!” Guthrie cried. “The slightest touch of that ray, even on low power, would cause the most horrible injuries, if not instant death!”

They drew back, startled, but with eyes staring at the chisel. Nothing happened in the first few instants, but as they looked they saw a circular blackness appear in the bright steel of the exact diameter of the ray. Even as they watched, the disc changed in appearance, until they realised that they were looking at the reflection of the faint light from the glass surface beneath. A clean hole, rather smaller than a threepenny piece, had been bored through the solid steel!

Guthrie walked down to the bench and picked up the chisel, taking extreme care to keep out of the path of his ray. Without looking at it, he handed the tool to the Designer, who, opening the door of the laboratory, examined it by daylight.



“Well, you seem to have a nice little place here. I suppose this is the Disintegrator?”

“Absolutely clean,” he observed. “Not even a particle of dust—and the steel is dead cold.”

“Yes, the heat caused by the rapid structural change in the metal is concentrated on the disintegrated portion. The temperature of the remainder is lowered, if anything,” replied Guthrie. “Look, here is the missing bit of the chisel!”

He pointed to a tiny wisp of vapour which crept through the open door into the sunlight and vanished. They were conscious of the faintly acrid odour of heated metal, but before either the Designer or Fred could remark upon it the air was torn asunder by a shattering explosion.

Boom!

The echoes hung in the air and reverberated slowly to silence as the three men stared at each other with whitening faces.

“My acetylene generator’s gone up!” gasped Guthrie—“the plant I put in for lighting the house only last week! . . . What a fool I am! Come into the shed, both of you, and look!”

They followed hard on his heels as he rushed to the Disintegrator.

“I’d forgotten to switch her off,” he said, remedying the oversight, “and the ray has eaten through the glass of the bench and window and run amok in the open. Yes”—going to the bench—“there’s a hole drilled clean through both. Look through the two holes, and you’ll see the ruins of the acetylene lighting plant!”

All three went to the scene of the explosion and found nothing but a few twisted shreds of metal, and a hole in the ground. But they were to hear more, for neighbours were by this time flocking into the garden from the nearby houses, with pitiful tales of shattered windows, fallen pictures and “heart attacks.”

Guthrie was distracted. As soon as he could, he pulled the other two with him into the house and bolted the door behind him.

“It’s no good, Designer. The thing works, but it’s too damn dangerous. I’m not going to play about any more with a force that I cannot control and don’t understand. I’ll destroy the whole caboodle!”

“Perhaps you are wise,” was the reply; “but why not sell the secret to the War Office for military purposes?”

“I won’t. Aren’t torpedoes and gas bad enough? That ray would turn warfare into absolute murder. I’ll break the Disintegrator up!”

THE COMPETITION YEAR.

Bright prospects for the forthcoming season of Automobile Sport.

CONDITIONS have been difficult in every branch of automobilism since the war, and the sporting side of the movement has not escaped the general disability that has obstructed the path of everyone, from manufacturers through all grades to private owners.

Club secretaries have been least of all to be envied, especially in regard to the preparation of the year's sporting programme—which is a pity, for we hold very strongly the view that competition, in every sense of the word, is beneficial.

With the gradual improvement in trade for which we may now look, and the promise of more stable conditions in general it may be confidently anticipated that the sporting side of automobilism also will improve, and we are convinced that the coming season will be the most successful one in this new, post-war era.

Believing in the value of competitions in "improving the breed" of

all types of car, and, thus, their direct advantage to the motor-owner, we are prepared to do our utmost to promote the success of the competition season, and with this end in view we are offering a number of valuable cups for competition in selected events during the year.

THE MOTOR-OWNER is sometimes regarded as a magazine which pays particular attention to the big car. This, however, is scarcely correct, inasmuch as it is rather our aim to deal with anything on four wheels in proportion to its value to and interest for the motor-owner, and in support of this statement it may be mentioned that the first MOTOR-OWNER Cup of

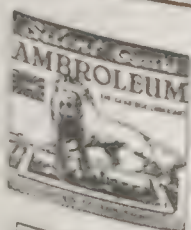
the season was competed for on February 11th in the "Economy Car" trial organised by the Midland Light Car Club. The cup, of the value of fifty guineas, was offered for the best performance of the day, to be held by the winner for one year. Points taken into account in making the award were petrol economy, acceleration, ability to stop and restart on a steep hill, easy starting—whether manual, mechanical or electrical—and ease of wheel changing. The winner was Mr. Rex Mundy, on a B.A.C. light car, to whom we tender our hearty congratulations.

We are not in a position at the moment to go more fully into details as to our programme, but we are able to state that two twenty-five guinea cups are offered for competition by THE MOTOR-OWNER in the Essex Motor Club's hill climb on March 25th. One will be awarded for the fastest climb of the day; the other will go to the owner of the car making the best ascent, regardless of class, on the Club's formula.



The centre trophy is THE MOTOR-OWNER Challenge Cup held for one year by Mr. Rex Mundy, whose all-round performance with a B.A.C. car was adjudged the best in the Midland Light Car Club's recent Economy Car trial. The cups at each side are those offered for competition in the Essex Motor Club's hill climb on March 25th for fastest time and best performance on formula.

Silent Gears



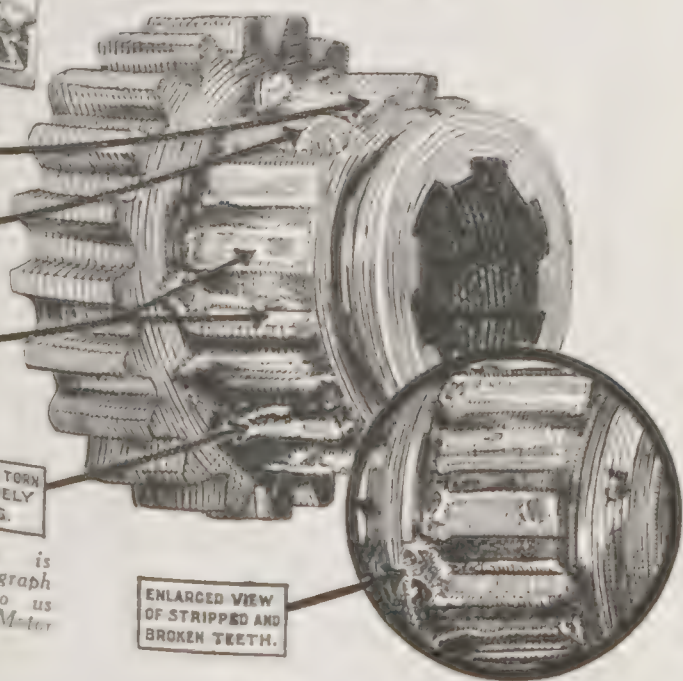
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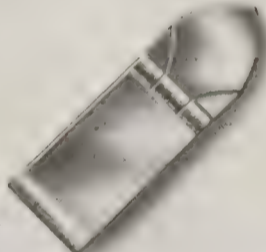
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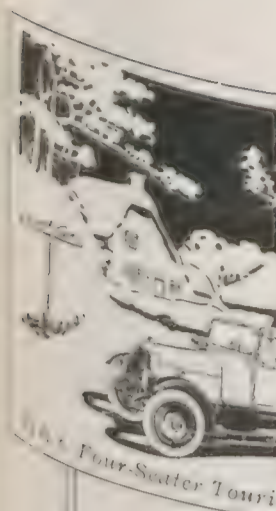
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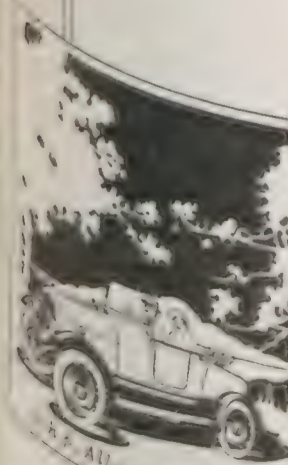
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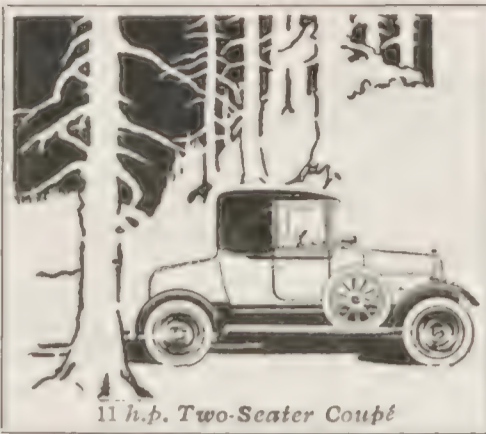
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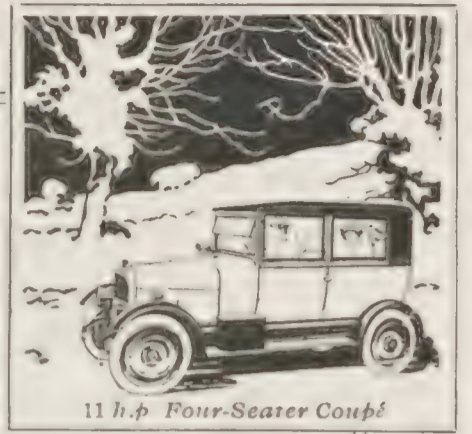
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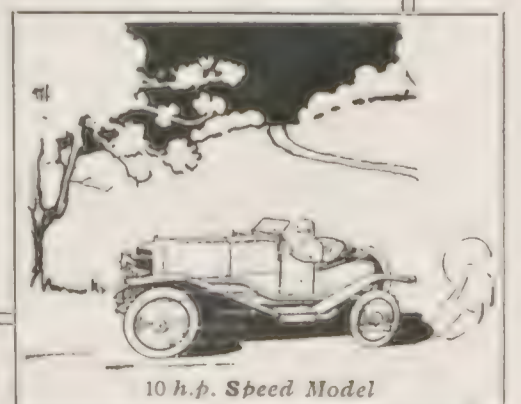
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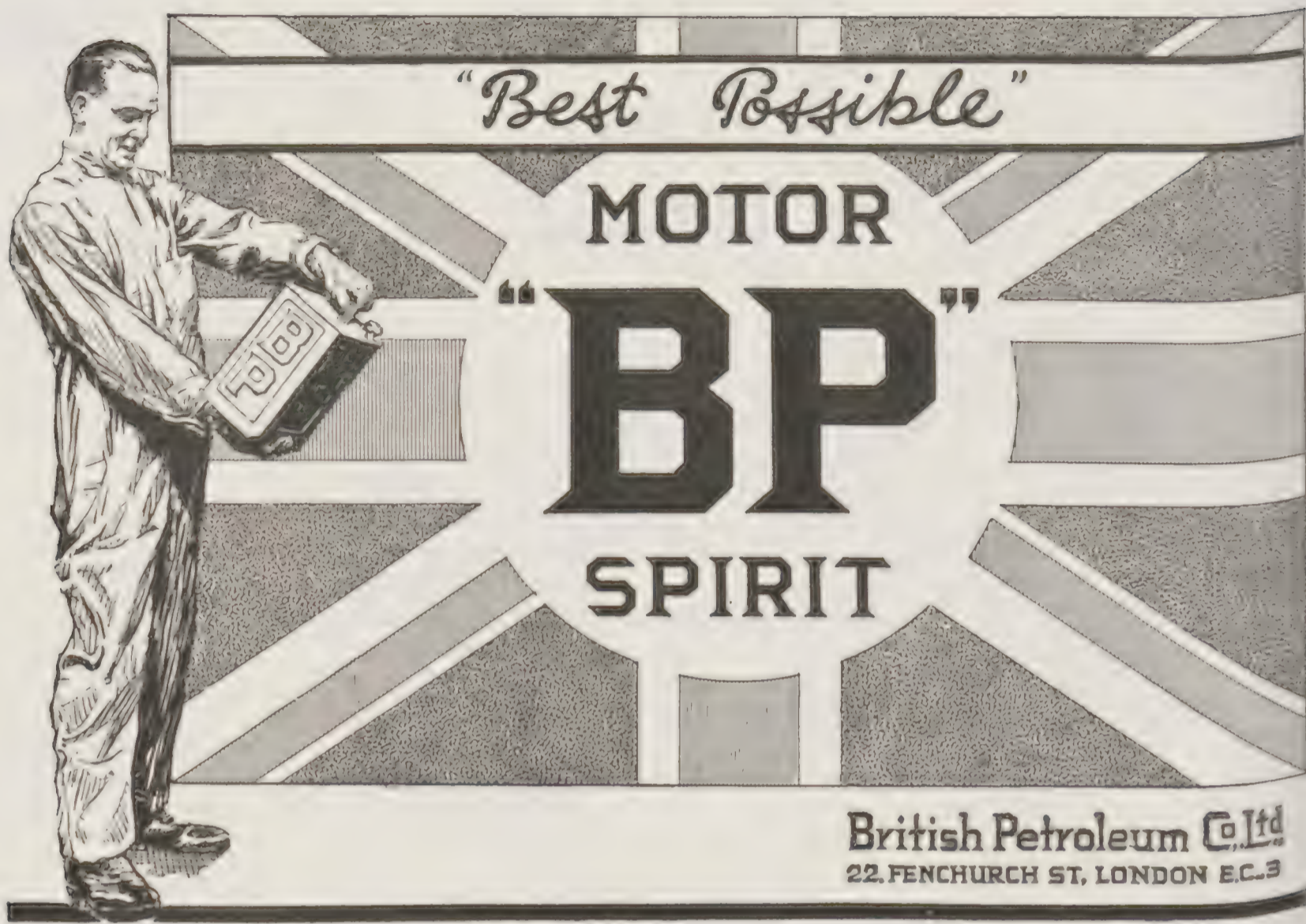
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MY LOG BOOK.

By *Hermes.*

Activities of the R.A.C. and A.A. Interesting and Instructive Books recommended for the Motor-Owner. A Clever and Original Accessory, and a further List of Price Reductions.

NOT before it is time, the R.A.C. has issued a list of motor schools it can recommend. Eleven such institutions are on its list, in which, the R.A.C. states, it has no interest beyond appointing them after due investigation. For teaching novices a good school is welcome, but to lead people to believe that they can invariably make a good living as a paid driver nowadays is unwise.

A change of address in the A.A. Liverpool offices has recently been made, the new premises being at 35, Dale Street (telephone 204 Bank, Liverpool; telegrams, Fanum, Liverpool). In London the A.A. has devised a further plan for its members' benefit—namely, the appointment of rather more than fifty garages within a radius of five miles of Charing Cross. The service one gets at these places is satisfactory.

In various other ways also the A.A. is looking after motorists. For example, it suggests the widening of bridges so narrow as to be dangerous. Again, it opposes certain roads being closed to motorists, while it is inaugurating a patrol service and otherwise assisting its members on the Riviera. Very acceptable also is the provision of electric lighting of the Association's roadside telephone boxes, which is automatically operated by the opening and closing of the doors.

Being one of those numerous motorists who possess some sort of skill in using tools, I read with great interest a book with the title *Automotive Repair*, 19s., published by John Wiley & Sons, New York, and Chapman & Hall, London. Mr. J. C. Wright, its author, who holds a number of influential appointments, has expended much thought and labour on its 530 pages, which are essentially readable, yet concise, and serving up information in a manner to suit a busy man. Many of the jobs are heavier than the amateur would usually care to undertake, but the explanations are so clear as to tempt him to essay them for himself, and if he follows

the clever instructions he will prove successful.

For many years I have known Messrs. A. J. Dew & Co., the motor accessories people, of 21-25, Endell Street, W.C.2, to be enterprising. Always they have something fresh to interest, as well as welcome variety and extensive stocks. Amongst their latest "wheezes" is their volunteering to pay carriage to agents on all orders to the value of ten pounds and upwards to any part of the British Isles, a policy that will help towards restoring normal trade conditions.

Keeping the engine in tune, a condition so desirable to every motorist, can now be both simplified and expedited by the use of a clever, newly originated device. Known as the Gale Indicator, this article is designed to fulfil the long-felt want of an instrument that is capable of registering exactly what happens inside a high-speed engine. The Gale Indicator will be indispensable to manufacturers, to racing motorists, to garages and, of course, to the private motorist who selects a repairing firm thus equipped. With the minimum of trouble the operator can tell the condition of an engine—whether the valve-timing is correct, the compression what it should be, and so on. The indicator is handled by the British Oil and Turpentine Corporation, 55 and 56, Chancery Lane, W.C., who are manufacturers of the Speedwell Oil that proved so successful in last year's competitions.

Vauxhall eminence, on road or in competitions, is so well known that the recent change in its directorate is worth noting. To the able brains in control of that firm is now added the distinguished personality of Sir J. J. Bisgood, past-president of the Chartered Institute of Secretaries.

Very opportunely the Sunbeam Co. have issued an instruction book respecting its new 14 h.p. model. The owner who desires to get the best from his car will do well to study this work, since it tells him everything he ought

to know about the mechanism, how to keep it efficient, and the best way to get over troubles. Suitable illustrations enhance the value of this booklet.

Supplying motor spirit by the roadside on the pump-bulk storage plan, so long popular in the U.S.A., is gradually coming into favour in the British Isles also. For this boon great praise is due to the Anglo-American Oil Co., whose installations are increasing in number as the public begin to realise their time and labour saving properties. Accurate measure, absence of danger of fire, and the certainty of getting high-grade fuel, are only some of this system's recommendations.

Various interesting properties are claimed for the compression tubes that Messrs. Bramco, of Coventry, are marketing. Users of these tubes are eloquent respecting their puncture-defying qualities.

Mr. Walter Dewis, for so long associated with the motor industry, has now commenced business on his own account, under the title Walter Dewis & Co., motor car specialists, 21, Mercer Street, Long Acre, W.C.2, with works at Glass Yard, Victoria Gardens, Notting Hill Gate, W.11. Mr. Dewis will continue to specialise in repairs to chassis and coachwork of Wolseleys, Mercédès, Rolls-Royce and Hispano-Suiza. Spare parts for these cars, and tyres and oils are also stocked.

Prices are still falling in certain cases, the Buick 4-cylinder touring having been reduced to £450, and the 6-cylinder touring model to £580. The new prices of the 2-seater models are—4-cylinder £435, and 6-cylinder £570. I have been informed also that the price of the Dodge has been lowered, the new price being, touring model (without magneto), £350.

Maxwell Motors, Ltd., announce a reduction of virtually £80 each in the price of all their models. The Standard touring model is now listed at £295, and the all-weather and coupé models (British coachwork) are priced at £505 and £465 respectively.

FAMOUS HOMES OF MOTOR-OWNERS.

Rous Lench Court, in the Lovely Vale of Evesham.

EMBOSOMED amid the soft contours of lovely Evesham Vale, Rous Lench Court stands majestic, the art of man the art of nature crowning. For Rous Lench Court is in many ways distinguished. Around its aspiring battlements, companioned by graceful chimney stacks and quaint old gables, wreath the legends of the Past. Rooted far back in history, the manor possesses a distinction to which but few indeed of England's romantic mansions can lay claim. Always has it commanded broad acres; for centuries it has towered a landmark, benign, dominant and picturesque, and, by virtue of its careful preservation and continuous improvements, it reveals a solidity, a vitality, and withal an attractiveness, that will endure for centuries.

The manor, as it exists to-day, is not, of course, the original building. To claim that would be to claim too much. A dozen centuries work a havoc that only the Sphinx or Pyramids can withstand. For, long before the great Norman king enforced his rule upon the British, the Rous Lench arms held sway over many a parish, many a fold.

Fashioned at that date as a dual quadrangle, the great house has in course of time resolved itself into the pattern of the letter L, Tudor-reminiscent, half-timbered, beamed and panelled in the style that displays fifteenth century architecture at its best.

To the antiquarian the mansion's external half-timber framework strongly appeals, influenced as it is by the time-modified fashion of the neighbourhood. The panelling in black and white is a pleasure to the eye, and the artist revels in the profusion of old oak beams and the wealth of cornices, ornaments and doors that are so richly moulded by long-gone carvers' craft.

Nor is the mansion's elevation without its fascination. Delicately obtruding itself into the main design is an upper storey, furnished profusely with mask head brackets, carved and ornamented, and barge-boards of quaint design. Upon the expansive lawns and horizon-embracing foliage look out great eyes of windows, set in noble mullions and yielding an exquisite panorama.

Immediately about the manor are ornamental grounds, which display at its best the landscape-gardener's work.

So historic a mansion as Rous Lench Manor has an appeal peculiarly its own. Having undergone but few changes in ownership, it was, at the time of the Norman Conquest, in the hands of the Bishop of Worcester. Later it came into possession of the Rous family, remaining under their ægis for nearly four centuries. Change came again about the middle of last century, when the demesne passed into the possession of the present holders, the Chafy family.

Rous Lench Manor enjoys the peculiar distinction of combining its exceptional antiquarian interest those attributes that modern tastes demand. The very manor in which Cromwell slept on the eve of the battle

of Worcester, where Edward III. was a welcome guest, is to-day enviable for its fine system of central heating, its baths and highly specialised sanitation, and its artesian well supply of crystal spring water.

And now, an oddly turn of wheels of time the manor is in the market, and the extensive estate for it includes three villages, eleven first-class farms, and a large area of valuable woodland— is trusted for disposal to Messrs. Norfoils and Prior, the well known estate agents of 101 Regent Street. Who from whom the fullest details may be obtained.

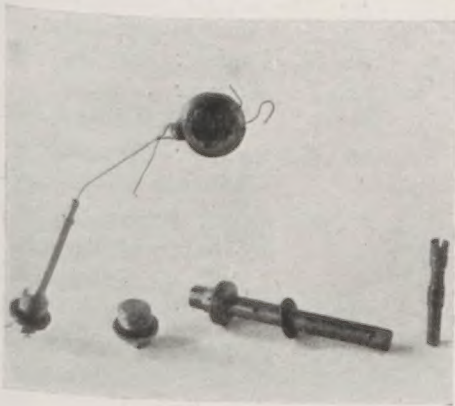


Fashioned originally as a dual quadrangle, Rous Lench Court has been modified in the course of time to the pattern of a letter "L."

A VITAL ITEM IN THE MAKE-UP OF THE CAR.

HOW DOES IT WORK?

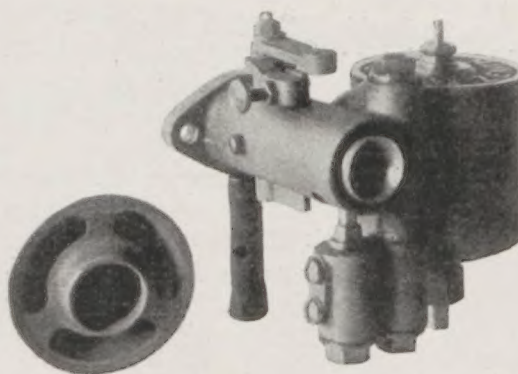
Some points worth noting on the care of one of the most popular carburetters.



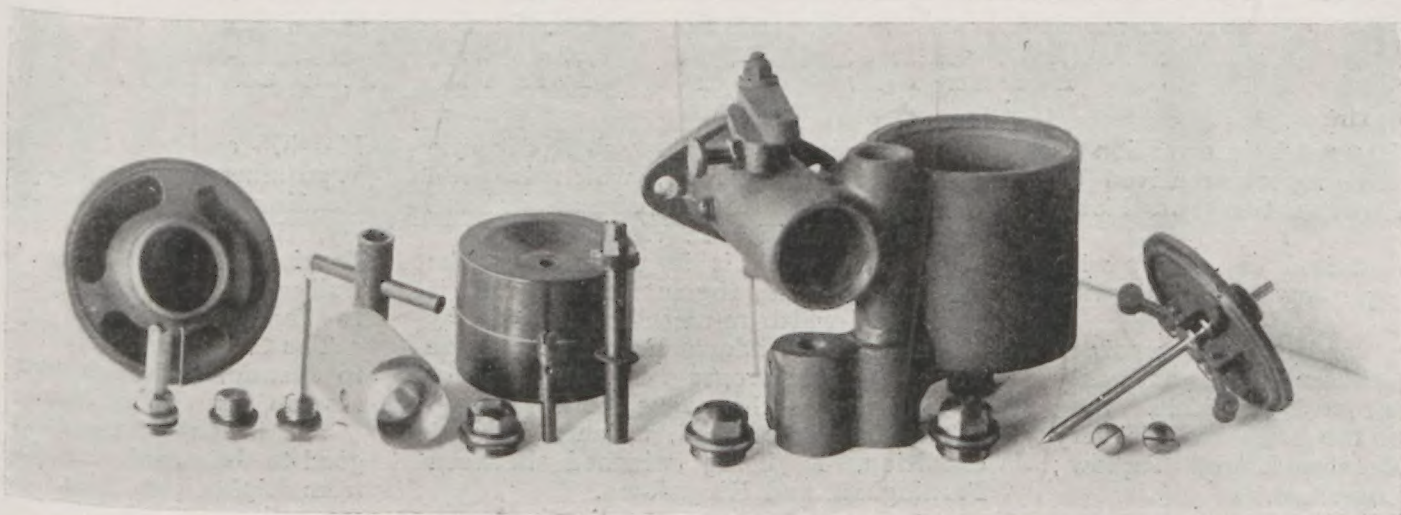
Although a carburetter, when completely dismantled, as in the large picture below, is apparently a mass of complication, in reality it is a simple matter to keep it in order. The jets can be freed from obstruction with a piece of the wire used to seal a petrol can, as in the small left-hand photograph. The needle-valve of the float chamber must make a good seating, but it requires grinding in only infrequently.



When the proper combination of jets and choke tube has been arrived at, they should not be unnecessarily interfered with. At least a note should be taken of the respective sizes that have proved satisfactory before experimenting with others. The cover of the air inlet is seen removed, exposing the choke tube, in the middle picture. The main jet in this Zenith carburetter projects into the choke, and is removed from beneath.



The theory of this popular type is as simple as its design. The main jet gives greater and greater efficiency as engine speed increases, while the compensator, as its name implies, balances this relative inefficiency at slow speeds. It is a rough guide to adjustment to say that if better acceleration is required a larger compensator may be tried, and if the maximum speed of a car is not good a larger main jet may be wanted.



WHAT'S ON IN MARCH?

Lighting-up time for London: March 1st, 6.07 p.m.; April 1st, 7.0 p.m.



1. W. 1st to 6th Paris to Nice Reliability Trial.
Racing: Kempton Park.
Lyons Fair
2. Th. Racing: Kempton Park.
3. F. Racing: Gatwick.
National Pony Show, R.A. Hall.
4. S. F.A. Cup, 4th Round.
Rugby: Royal Navy v. Army,
Twickenham.
5. Sun.
6. M. Racing: Derby.
8. W. National Hunt Meeting, Cheltenham.
9. Th. 2nd Battle of Flowers, Nice.
10. F. Racing: Hurst Park.
11. S. Rugby: Wales v. Ireland, at Swansea.
Assoc.: French Army v. British Army,
Paris.
Junior Car Club, General Efficiency
Trial.
National Cross Country Championship.
12. Sun. La Turbie Hill Climb, near Nice.
13. M. F. Assoc.: England v. Wales, at Liver-
pool.
14. T. Racing: Lingfield Park and Wolver-
hampton.
14 to 20, Tour de France, Reliability
Trial.
15. W. A.C.U. Stock Machine Trial.
Rugby: London Hospital Cup Final.
16. Th. Racing: Sandown Park.
17. F. Racing: Sandown Park, Grand Mil-
itary Meeting.
18. S. Rugby: England v. Scotland, at
Twickenham.
19. Sun. Flying Kilometre Trials, Promenade
des Anglais, Nice.
20. M. Racing: Lincoln.
21. T. Racing: Lincoln.
Manchester Dog Show.
22. W. Racing: Lincoln.
Manchester Dog Show.
23. Th. 23-27, Monaco Hill Climb, etc.
3rd Battle of Flowers, Nice.
A.C.U. E. Midland Reliability Trial.
24. F. Racing: Grand National, Liverpool.
25. S. Essex Motor Club Hill Climb.
Grand Ball, Nice.
F.A. Cup, Semi-Finals.
26. Sun.
27. M. Racing: Warwick.
28. T. Racing: Royal Artillery, Sandown
Park.
29. W. Racing: Lingfield Park.
Royal Horticultural Society Show.
30. Th. Assoc.: Army F.A. v. Belgian Army
(Woolwich).
31. F. Racing: Newbury.

THE STATE OF THE ROADS.

THE following road information is compiled from reports received by the Automobile Association and Motor Union:—

Motorists are advised to comply with the regulation regarding the illumination of number plates.

The Aylesbury road is under repair in High Street, Berkhamstead, and only half-width of the road is available.

The surface of the Bath road is very poor between Colnbrook and Taplow; then good to Hungerford.

Repairs are in hand at Crawley, Bolney, Redhill and Patcham. Otherwise the surface of the Brighton road is good, except for stretches at Handcross, Dale Hill and Preston. The main road just south of Redhill is closed, and traffic should proceed *via* Garlands Road.

Caution is advised through Redbourne on the Coventry road, which is good generally. Full-width repairs are in hand between Hockliffe and Woburn.

Drainage work is in progress on the Eastbourne road, the surface of which is fair. Full-width re-metalling in hand at north end of Ashdown Forest. Drainage work is still in progress east and west of Wilmington on the Lewes road.

The Folkestone road, which is in good condition, is being widened between Farningham and Kingsdown.

Repairs are in progress at Lamberhurst, Robertsbridge and Battle, on the Hastings road; otherwise the surface is fair. Repairs are also in hand between Locks Bottom and Keston Mark.

The Oxford road is poor to Uxbridge, then fair. Repairs are in hand at Wycombe

Marsh, and road-widening at West Wycombe, Bix and Dorchester. The Reading-Wantage road is good to Streteley, then poor in places to Faringdon. Caution advised through the latter place. Full-width re-metalling in hand Charlton to Wantage.

The Great North road is generally good to Stamford, though poor between Norman's Cross and Stilton.

The surface of the Portsmouth road is good to Guildford, then fair. Poor stretch from Liphook to Liss. Caution advised one mile south of Guildford and through Butser Cutting (falling chalk boulders). Compasses Bridge on the Guildford-Horsham road is unsafe to heavy traffic, which should turn left after crossing Shalford Bridge and proceed *via* Womersley and Cranleigh.

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Humber

Our artist has strikingly illustrated the luxury of modern travel as compared with that of bygone days. In her wildest flight of imagination the lady on the pillion seat could form no idea of the comfort and convenience of a Humber Saloon. The model here illustrated embodies the accumulated experience of nearly a quarter of a century of car construction : the result is a car of faultless design, exquisite balance and refined finish. In the opinion of motor experts it is "a model of luxurious comfort and superb refinement."

It may be inspected at Humber House, 94, New Bond St. ; at 32 Holborn Viaduct ; at Carlisle, Ltd., 130 Piccadilly West, or at The Car Mart, Euston Rd., N.W.

Illustrations and full specifications will be sent on request.



April 19